

AUTHOR INDEX*

Volume 51

A

Aalders, J. G., 116
 Aapro, M., 294
 Abbott, B. J., 2837
 Abdiu, A., 3585
 Abe, K., 2223
 Abe, K., 4631
 Abe, K., 6656
 Abe, O., 1504, 2199, 6656
 Abe, T., 3327
 Abidi, T. F., 813
 Abraham, B. A., 4107
 Abrahams, C., 5608
 Abrams, P. G., 676
 Acevedo, J., 3153
 Achten, S., 3702
 Acker, H., 1039
 Ackerman, J. J. H., 3108
 Ackermann, R., 1811
 Adachi, H., 5951, 5956
 Adami, H.-O., 3696
 Adams, J., 2531
 Adamson, P. C., 6079
 Adenis, L., 5384
 Aderka, D., 5602
 Adi, S., 2803
 Adlakha, H., 3411
 Afshari, C. A., 6010
 Agarwal, C., 3982
 Agarwal, M. L., 5993
 Agarwal, S. C., 5198
 Aggarwal, B. B., 4266
 Aherne, G. W., 2346
 Ahlem, C. N., 6650
 Ahluwalia, G. S., 3733
 Ahmad, M., 857
 Ahmed, K. J., 1866
 Ahn, D. K., 1014, 1370
 Aisenberg, A. C., 6103
 Aitokallio-Tallberg, A. M., 4146
 Akao, Y., 1574, 6708
 Aki, M., 6677
 Akinaga, S., 4888
 Akita, H. D., 6346
 Akita, R. W., 2593
 Akiyama, F., 5794
 Akiyama, T., 990
 Akslen, L. A., 1234
 Alaoui-Jamali, M. A., 3946
 Alauddin, M., 2694
 Albeck, M., 1499, 5614
 Alberti, D., 1099, 1105, 1651
 Albertini, A., 4470
 Albertini, R. J., 6001, 6603
 Albini, A., 2670
 Albino, A. P., 4815, 5881
 Albright, K. D., 3677
 Aldaz, C. M., 1045
 Alewood, P. F., 5826
 Alexander, J., 4199

Alfthan, H., 222
 Alfthan, O., 222
 Alini, M., 1443
 Allavena, A., 2273
 Allegra, C. J., 6668
 Allen, L., 5461
 Allen-Hoffmann, B. L., 5967
 Alley, M. C., 1247
 Alsina, M. M., 2438, 4430
 Alterman, A. L., 2444
 Altermatt, H.-J., 2092
 Altschuler, E., 4729, 6704
 Amano, T., 1472
 Aremiya, K., 5322, 5951, 5956
 Amin, S. G., 1846
 Amlot, P., 4052
 Ammigan, N., 3018
 Amos, C. I., 1793
 Amoss, M. S., Jr., 2025
 Amundsen, A. R., 1866
 Anderson, K., 4757
 Anderson, L. D., 6650
 Anderson, M. W., 1148
 Anderson, P., 6084
 Anderson, P. M., 2127
 Anderson, R. D., 3930
 Anderson, R. L., 2636
 Anderson, T. D., 1318
 Anderson, W. K., 4581
 Andersson, C., 880
 Ando, N., 1504
 Andoh, T., 4903, 4909
 Andresen, S., 857
 Andrew, S. M., 5716
 Andrews, A. F., 549
 Andrews, P. A., 3677, 5903
 Andrews, P. E., 3748
 Andrusis, I. L., 985
 Angeles, S. M., 3420
 Anglard, P., 1071, 2490
 Anichini, A., 2239
 Annab, L. A., 6010
 Antal, J., 857
 Antman, K. H., 5060s
 Antoniades, H. N., 1345
 Antoniono, R. J., 4455
 Antunez, A. R., 5993
 Anzai, K., 5392
 Anzai, Y., 5476
 Aoki, T., 318
 Aoki, Y., 1934
 Aonuma, M., 4187
 Appelbaum, F. R., 5921
 Appella, E., 4090
 Applegate, L. A., 974
 Applegate, L. A., 6539
 Arai, H., 110
 Araki, A., 3212
 Arao, T., 1726
 Arase, Y., 2842

Arce, C., 3391
 Archibald, B.-L., 1904
 Argon, Y., 5361
 Arita, M., 2319
 Ariyoshi, Y., 2416
 Arkin, H., 55
 Arlinghaus, R. B., 3048
 Arlow, F. L., 3416
 Armour, E. P., 3088
 Arndt, C. A., 6079
 Arthur, K., 4476
 Arzoomanian, R. Z., 1099, 1105, 1651
 Asa, S. L., 6351
 Asamoto, M., 2548
 Asano, K., 3710
 Asano, T., 4450
 Asanuma, F., 4631
 Ascani, E., 536
 Ashar, B., 4360
 Ashendel, C. L., 4624
 Ashizawa, T., 110
 Ashmun, R. A., 6286
 Ashton, W. S., 1564
 Asina, S., 2706
 Asou, N., 6084
 Assaraf, Y. G., 2949
 Asselin, B. L., 6568
 Aston, D. A., 1370
 Atassi, G., 2312
 Athas, W. F., 5786
 Atlante, G., 3001
 Atlas, E., 612
 Atzpodien, J., 6312
 Au, J. L.-S., 3849, 4347, 5144
 Aubin, F., 5893
 Aubry, J., 1537
 Auger, M., 718
 August, E. M., 1586
 Augustin-Voss, H. G., 394
 Ault, J. G., 4942
 Aurbach, G. D., 1154
 Austin, D. F., 3044
 Austin, E. B., 5425
 Austin, H., 568
 Austin, J. M., Jr., 568
 Avanzi, G. C., 1741
 Avis, I., 1798
 Awad, B. H., 1959
 Azuma, I., 22
 Azuma, M., 110

B

Baba, H., 2994, 3559, 3568
 Baba, I., 1286
 Baba, M., 785, 2863, 3493, 6150
 Bachor, R., 4410
 Backmann, R., 4712
 Badalament, R. A., 3849, 4347, 5144

Badger, C. C., 5921
 Baer, A. R., 2069
 Baggs, R. B., 3311
 Baguley, B. C., 77
 Bailey, G. S., 2362
 Bailey, H., 1099, 1105
 Bailey, J. R., 4371
 Baillie, R., 4685
 Bak, M., 4102
 Baker, M. A., 1257, 4955
 Baker, T. S., 5461
 Bakhshi, R., 1817
 Baki, W., 2098
 Baldwin, B., 3925
 Baldwin, D. M., 492
 Baldwin, J. K., 5642
 Baldwin, N. J., 1384
 Baldwin, R. W., 1990, 5425
 Bale, A. E., 1154
 Balis, F. M., 5467, 6079
 Balkwill, F. R., 4020, 6643
 Ball, E. D., 2451
 Ballejo, G., 5476
 Ballinari, D., 199
 Balmain, A., 4097
 Balosso, J., 3204
 Baltzer, L., 3096
 Bamberg, M., 4762
 Bamias, A., 724, 3251
 Banáth, J. P., 4671
 Band, V., 3602
 Bando, Y., 3153
 Banerjee, A., 4481
 Banerjee, S., 1092
 Banez, M., 2002, 5687
 Bannasch, P., 1952
 Bano, M., 3590
 Barber, D. C., 1836
 Barber, S. R., 4423
 Barbey, S., 5712
 Barcos, M. P., 2985
 Bardoel, A., 1020
 Barkai, I. S., 5614
 Barker, E., 144
 Barletta, C., 3821
 Barna, B. P., 836, 857
 Barnd, D. L., 2908
 Barnett, T., 1851
 Barone, E., 301
 Baroni, C. D., 2456
 Barr, L. F., 5514
 Barrett, J. C., 6010
 Barrett, J. S., 3434
 Barrow, B. J., 1564
 Barth, R. F., 2373
 Bartholomew, M., 4149
 Bartolazzi, A., 3001
 Barton, R. L., 5774
 Bartram, H.-P., 4238
 Baserga, R., 1465, 5997

* For title of article and coauthors, see listing in Contents of Volume 51 beginning on page i at the end of this index issue.

AUTHOR INDEX TO VOLUME 51*

Basse, P. H., 4931
 Bassin, R. H., 324
 Bast, R. C., Jr., 468, 2908, 2979, 5361
 Bastid, C., 5679
 Basu, A., 893, 2511, 5903
 Basu, A., 5626
 Bataille, R., 3224
 Batist, G., 1434
 Battifora, H., 3802
 Bauer, K. D., 2403
 Bauer, L., 836, 857, 4199
 Baum, E. S., 2885
 Baumal, R., 1619
 Bautch, V. L., 4917
 Baxter, J., 3930
 Baxter, L. T., 3119
 Baylin, S. B., 5514
 Bazer, F. W., 5304
 Beardsley, G. P., 2291
 Beattie, C. W., 2025, 3768
 Beatty, B. G., 2335
 Beatty, J. D., 2335, 3802, 5704
 Beauchamp, R. D., 5253
 Beaumier, P. L., 676
 Bechtel, D., 907
 Beck, S. A., 6089
 Beck, W. T., 4213, 4665
 Beckett, M. A., 521, 6393
 Beckett, M. L., 1326
 Bedford, J. S., 2740
 Beex, L. V. A. M., 4544
 Begović, M., 1521, 5153
 Behn-Krappa, A., 3702
 Behrens, J., 6328
 Bei, R., 5378
 Bélanger, P. M., 3946
 Belizario, J. E., 2379
 Bell, R., 5565
 Bell, S. C., 3030
 Bellamy, W. T., 995
 Bellocq, J.-P., 624
 Bellon, S. F., 1866
 Bellot, F., 2438
 Beltran, L., 1398
 Belury, M. A., 907
 Bem, W. T., 6558
 Benabid, A. L., 2566
 Bénard, J., 33
 Benasutti, M., 2268
 Bendt, K. M., 2908
 Benedict, W. F., 2735, 4481, 5736
 Benenati, S. V., 4395
 Benítez, J., 2098
 Benjamin, H., 2940
 Benjamin, S. A., 2740
 Benjamin, W. R., 1823
 Bennett, L. L., Jr., 2386
 Bennett, R. C., 3059
 Bennett, W. P., 4090, 5370
 Bennicelli, J. L., 3334, 4853
 Benraad, T. J., 4544
 Bensaadi, N., 3633
 Benson, R. W., 4371
 Benvenuto, J. A., 935
 Beran, M., 935
 Berchuck, A., 2979
 Berd, D., 2731, 4937
 Berdel, W. E., 43, 3862
 Berens, M. E., 1713
 Berg, R. H., 6286
 Berg, S. L., 5467
 Bergamaschi, G., 536
 Berger, U., 239
 Bergeron, R. J., 3715
 Bergholz, M., 3243
 Berhane, K., 94
 Berkoff-Flint, Y., 612
 Berline, J., 1014
 Berlion, M., 2312
 Bermudez, E., 4059
 Bernasconi, S., 2239
 Berns, A., 958
 Bernstein, I. D., 5921
 Berrino, F., 2572
 Berry, N., 1990
 Bertino, J. R., 789
 Bertone, A., 1917
 Bertrand, R., 6280
 Beshah, K., 3289
 Betsholtz, C., 1553
 Beyaert, R., 2469
 Bhandal, A. K., 3451
 Bhargava, M., 5315
 Bhide, S. V., 3018
 Bi, N., 372
 Bianchi, A., 1045, 6615
 Bianchini, F., 3721
 Bianco, A. R., 1294, 4898
 Biedler, J. L., 1596
 Biesma, B., 73, 116
 Bigner, D. D., 3339, 3906, 4164, 4643, 4721
 Bigner, S. H., 4721
 Bigos, D., 1561
 Bigotti, A., 3001
 Bilhartz, D. L., 3748
 Billings, P. C., 5539
 Billingsley, M., 4149
 Biocca, M. E., 4603
 Biondi, A., 6358
 Biondi, D. A., 1823
 Birch, M., 6660
 Birchmeier, W., 6328
 Bird, R. P., 5270
 Birrell, G. W., 5826
 Birt, D. F., 1851
 Bissery, M.-C., 4845
 Bistrain, A., 4994
 Bizzari, J.-P., 2312
 Bjerkvig, R., 1713, 4643
 Blakely, R. L., 6568
 Blanz, J., 3427
 Blasi, F., 3690
 Blättler, W. A., 6236
 Blazar, B. R., 1883, 1891
 Bleehen, N. M., 5205
 Bloom, S. R., 5205
 Bloomer, W. D., 6695
 Blot, W. J., 3044, 3068
 Blottière, H. M., 1537
 Blount, P. L., 5482, 5766
 Blum, M. R., 3906
 Blumberg, P. M., 5355
 Blumenson, L. E., 4701
 Boccon-Gibod, L., 33
 Bock, S. N., 2649
 Bodell, W. J., 1568
 Bodmer, M., 181
 Boesch, D., 4226
 Bogdanovski, M., 310
 Bogdanowicz, J. F. A. T., 3445
 Bogden, A., 1798
 Bohoslawec, O., 1318
 Bohr, V. A., 775, 6550
 Boice, J. D., Jr., 2885
 Boileau, M. A., 1373
 Boiron, J.-M., 3224
 Bok, R. A., 672
 Boland, C. R., 657
 Bolhuis, R. L. H., 2324
 Bolling, T. J., 1876
 Bollinger, P., 4226
 Bols, B. L. M. C., 1177
 Bolton, M. G., 2410
 Bolz, I., 3243
 Boman, B. M., 1452
 Bondada, V., 1973
 Bongcam-Rudloff, E., 1553
 Bonner, R. B., 2762
 Bookland, E. A., 3323
 Boone, C. W., 3069
 Boonstra, H., 5915
 Boonstra, J., 4028
 Boothman, D. A., 5587
 Borden, E. C., 1651, 4155
 Borst, P., 2628
 Bosia, A., 1741
 Bossola, P. C., 2456
 Botta, E., 3965
 Boucheix, C., 3224
 Boucher, Y., 6691, 6695
 Bouffard, P., 5384
 Boukamp, P., 4402
 Bourhis, J., 33
 Bowden, P. E., 3793
 Bowler, J., 3867
 Bowlin, T. L., 62
 Bowman, D., 365
 Boyd, D., 3690
 Boyd, J., 6010
 Boyd, M. R., 1247, 2515, 2837
 Boyer, C. M., 2908, 5361
 Boyer, J. C., 2960
 Boyett, J., 4199
 Boyle, L. A., 3164
 Boynton, R. F., 5766
 Braakhuis, B. J. M., 211
 Brachman, D. G., 6393
 Brady, J. F., 1509
 Brambilla, C., 2566
 Brambilla, E., 2566
 Brambilla, G., 2273
 Branda, R. F., 6603
 Brandi, M. L., 1154
 Brandt, D., 294
 Brandt, M. E., 3663
 Brantom, P., 6415, 6452, 6470
 Brasitus, T. A., 4305, 5608
 Brattain, M. G., 1452, 5275
 Brauch, H., 1071
 Braunschweiger, P. G., 5454
 Breillout, F., 2073
 Breit, P., 2478
 Breitkreutz, D., 4402
 Brem, H., 672
 Brenes, M. M., 4785
 Brennan, J., 1708
 Brennan, M. F., 863
 Brent, T. P., 3339
 Breuer, M., 958
 Briggs, S. L., 2965, 5471
 Brill, A. B., 255
 Brinton, L. A., 4785
 Brizzi, M. F., 1741
 Brockenbrough, J. S., 130
 Brockhausen, I., 1257, 3136
 Brockman, R. W., 2386
 Broder, S., 4743
 Brodeur, G. M., 1596, 4721, 5435
 Brodie, A. M. H., 3663
 Brodt, P., 3578
 Broggini, M., 199
 Bromberg, W. D., 2780
 Bronstein, S. M., 5188
 Brooks, G., 3281
 Brother, M. B., 1596
 Brouckaert, P., 2366
 Broussoud, A., 5370
 Brown, E. J., 3726
 Brown, J. M., 3768
 Brown, J. M., 4463
 Brown, M., 5579
 Brown, R., 2242
 Brown, R. R., 1651
 Brown, T. D., 6268
 Brown, T. R., 841
 Broyde, S., 3482
 Brubaker, P. L., 1196
 Bruchelt, G., 6066
 Bruggink, J., 1105
 Bruskin, A. M., 5361
 Bryce, W., 4149
 Brynes, R. K., 2015
 Bubley, G., 1086
 Bucana, C. D., 3062, 3741
 Buchmann, A., 4097
 Buchsbaum, D. J., 1883, 1891
 Buchsbaum, R., 6695
 Buckley, J. D., 3617
 Budd, G. T., 836, 4199
 Buddenbaum, W. E., 573
 Budillon, A., 1294
 Budnick, R. M., 595
 Bukowski, R. M., 836, 857, 4199
 Bull, J. M. C., 2994, 3559, 3568
 Bull, R., 6596
 Bumol, T. F., 2286
 Bunn, P. A., 688, 3274
 Bunni, M., 789
 Buras, R. R., 2335
 Buresh, C. M., 2302
 Burghardt, R. C., 696
 Burgua, W. D., 676
 Burill, C., 487
 Burke, P. J., 3534
 Burkhardt, B. A., 6010
 Burrows, F. J., 4768

* For title of article and coauthors, see listing in Contents of Volume 51 beginning on page i at the end of this index issue.

AUTHOR INDEX TO VOLUME 51*

Bursch, W., 2478
 Burstyn, J. N., 1866
 Busch, H., 1973
 Busch, R., 43
 Busch, R. K., 1973
 Buser, K., 2092
 Bussemakers, M. J. G., 606
 Butel, J. S., 49
 Butler, M. A., 4371
 Buzard, G. S., 5308
 Byars, N., 6045
 Byers, V. S., 1990
 Byrd, J. C., 1026
 Bystryn, J.-C., 3643, 5003
 Byus, C. V., 2932

C
 Caamano, J., 6615
 Caballes, L., 886
 Cabrera, T., 2463
 Caderni, G., 3721
 Cagle, P. T., 2735
 Cai, R-Z., 5980
 Cairoli, V., 753
 Calabretta, B., 2897, 3821, 4505
 Calabró, A. M., 652
 Calderone, C., 400
 Callahan, A. P., 4594
 Callahan, R., 181, 2490, 6194
 Callé, A., 405
 Calvert, A. H., 5579
 Cameron, G. S., 850, 5642
 Cameron, I. L., 6388
 Cameron, R. B., 2649
 Campbell, I. G., 5329
 Campbell, T. C., 3826
 Campen, C. A., 1823
 Campo, E., 4436
 Campos, R. V., 1196, 6351
 Canaani, E., 6712
 Canaani, O., 6712
 Candelaresi, G., 1917
 Candrian, U., 1148
 Cannizzaro, L. A., 3818, 6712
 Cantaloube, J-F., 3224
 Canuto, R. A., 4603
 Cao, J. D., 1515
 Capizzi, R. L., 2559
 Caporaso, N. E., 5219
 Cappa, A. P. M., 6194
 Cara, A., 1733
 Caraglia, M., 1294
 Caramia, F., 5378
 Carayannopoulos, L., 6125
 Carbone, D. P., 6142
 Cardesa, A., 4436
 Cardona, C., 5205
 Cardona, S., 964
 Carey, T. E., 2395
 Carinhas, J., 3669
 Carlboom, E., 1684
 Carlsson, J., 1039
 Carmi, P., 2173
 Carmona, R., 422
 Carnes, B. A., 4125
 Carney, D. N., 3296
 Carralero, D., 387

Carrasquillo, J. A., 688
 Carroll, P. R., 3807
 Carroll, S. F., 1990, 4219
 Carson, D. A., 3193
 Carson, D. D., 1910
 Carson, L., 4012
 Carter, B. S., 4716
 Carter, C. A., 499
 Casalaro, A., 1733, 4342
 Casazza, A. M., 5275
 Cashmore, A. R., 2291
 Casley, W. L., 1668
 Caspers, J. I., 3990
 Casson, A. G., 4495
 Castonguay, A., 2009, 3946
 Castro, V. M., 94
 Castronovo, V., 5672
 Catapano, C. V., 1829
 Cathignol, D., 3024
 Caty, A., 5384
 Caulfield, M. J., 2521
 Cavalleri, A., 2572
 Cavender, A. C., 1744
 Cavenee, W. K., 1684, 2164, 5100,
 5435
 Cavener, D. R., 3405
 Cazzola, M., 536
 Ceriani, R. L., 4994
 Cerny, T., 2092
 Cerutti, P., 5370
 Chabner, B. A., 6668
 Chagnovich, D., 6338
 Chambon, P., 624, 3972
 Chamness, G. C., 105
 Chan, D., 2151
 Chan, T., 4575
 Chanda, E. R., 3345
 Chander, S. K., 5851
 Chandler, K. B., 1829
 Chandrasekar, B., 6243
 Chaney, S. G., 969
 Chang, A-S., 5621
 Chang, C., 1898
 Chang, C-H., 2386
 Chang, C-H., 4594
 Chang, C. N., 465
 Chang, J-Y., 1755
 Chang, P-L., 2144
 Chang, Z-F., 4724
 Chao, C-C., 3938
 Chao, C. K., 601
 Chao, L. A., 2593
 Chapelon, J. Y., 3024
 Chapin, C., 6286
 Chaplin, D. J., 2251
 Chappel, C. I., 1766
 Char, D. H., 1370
 Charak, B. S., 2015, 2694
 Chatal, J-F., 1537
 Chattopadhyay, P., 3183, 6045
 Chaudhuri, A., 2552
 Chauffert, B., 3024
 Chauhan, S. S., 1478
 Chauvin, C., 2566
 Chen, A., 1045
 Chen, A. Y., 6039
 Chen, B. M., 4001

Chen, C-J., 1720, 5621
 Chen, J., 3826
 Chen, P-L., 6381
 Chen, P. P., 3193
 Chen, Q., 1544
 Chen, R-H., 2587
 Chen, S., 4131
 Chen, S-C., 1898
 Chen, S-C., 2015
 Chen, Y-F., 657
 Chen, Z. J., 4790
 Cheng, A-L., 6629
 Cheng, P-W., 601
 Cheng, R., 2889
 Cheng, Y-C., 1755
 Chengde, L., 2307
 Cherif, A., 6704
 Chernajovsky, Y., 6292
 Cheung, N-K. V., 1117, 4865
 Chiarodo, A., 2498
 Chiba, I., 6194
 Chidambaram, A., 6385
 Chikkala, N. F., 6133
 Chin, S. F., 6118
 Chin, T., 2101
 Ching, L-M., 77
 Chiolerio, F., 5960
 Chisari, F. V., 1278
 Chitambar, C. R., 6199
 Chizzonite, R., 415
 Chmiel, J. S., 2403
 Cho, J-M., 4250
 Cho, K. R., 4135
 Cho, Y. L., 2848
 Cho-Chung, Y. S., 6206, 6263
 Choi, C-I., 1846
 Cholon, A., 4463
 Chong, Y. C., 2047
 Chou, C-K., 1898
 Chou, J. Y., 2058
 Choux, R., 5679
 Chovnick, A., 465
 Chresta, C. M., 6592
 Chrétien, P., 5245
 Christensen, C., 2848
 Chu, H., 3274
 Chubb, S., 6110
 Chun, H. G., 1803
 Chung, F-L., 137, 1846
 Chung, L. W. K., 1910, 3753
 Chung, R. T., 2280
 Ciardiello, F., 1051
 Cimino, G., 6712
 Cimino, L., 5491
 Cincotta, L., 1109, 2710
 Ciocca, V., 439
 Citron, M., 4131
 Civin, C. I., 4279
 Clapper, M. L., 6059
 Clark, B. A., 5826
 Clark, G., 1391
 Clark, G. M., 944
 Clark, P., 4052
 Clarke, R., 1638
 Clarke-Pearson, D. L., 2979
 Clarkson, B. D., 2084, 4828
 Clausen, H., 2879

Clay, M. E., 5993
 Cleary, K. R., 387, 4495, 5728
 Clemente, F., 3633
 Clerc, F., 3633
 Clezardin, P., 2621
 Clodfelter, K., 897
 Cochrane, C. G., 6066
 Cochrane, J. E., 5188
 Codd, M. B., 3296
 Coffey, D. S., 6514
 Coffey, R. J., Jr., 5253
 Cohen, H. J., 6568
 Cohen, J. S., 1638
 Cohen, M. B., 521
 Cohen, M. B., 3807
 Cohen, N. A., 4360
 Cohen, S. M., 1766, 1778, 3471,
 6493
 Cohn, S. L., 6338
 Colburn, N. H., 1158
 Colcher, D., 181, 2889, 5461
 Coldman, A. J., 1904
 Cole, D., 3171
 Cole, R. W., 4942
 Cole, S. P. C., 3345
 Coleman, C. N., 1086
 Collins, A. R., 3965
 Collins, J. A., 255
 Collins, R., 4052
 Collins, V. P., 1684, 2164, 4295
 Collinson, A. R., 6236
 Colnaghi, M. I., 6125
 Colombo, M. P., 2897
 Colston, K., 239
 Colucci-D'Amato, G. L., 4234
 Colvin, O. M., 2410
 Comis, R. L., 2041, 3080, 3171,
 6059
 Comstock, G. W., 1366
 Conaway, C. C., 3143
 Concha, A., 2463, 4948
 Coney, L. R., 6125
 Conney, A. H., 813
 Connor, J., 3062
 Constantinidis, I., 3378
 Conti, C. J., 737, 1045, 4859, 6615
 Contreras, E., 6388
 Cook, J. A., 1606, 4287
 Cooksley, W. G. E., 4367
 Coombes, R. C., 239, 1817, 4685,
 5851
 Coon, J. S., 897, 2720
 Cooney, D. A., 3733
 Cooper, D. L., 1586
 Coppola, D. J., 6568
 Corbisiero, R. M., 5704
 Cordeiro-Stone, M., 2960
 Cordell, J., 123
 Cordon-Cardo, C., 5405, 6372
 Cornaglia-Ferraris, P., 4342
 Cornelisse, C. J., 1020, 4028
 Cornelius, A. S., 6025
 Cornil, I., 4486
 Corominas, M., 5129
 Correa, P., 190
 Corry, P. M., 3088
 Corsi, C., 301

* For title of article and coauthors, see listing in Contents of Volume 51 beginning on page i at the end of this index issue.

AUTHOR INDEX TO VOLUME 51*

Coscia, C. J., 6558
 Costantini, V., 349, 354
 Cote, R. J., 2706, 5410
 Cotelingam, J. D., 688
 Coulombe, B., 2138
 Courtenay, A. E., 2353
 Coverlizza, S., 1917
 Cowan, J., 6338
 Cowan, K. H., 587
 Cowen, M. E., 3274
 Cox, L. R., 4810
 Cox, R. S., 2280
 Coy, D., 1798
 Craft, T. R., 5188
 Cragoe, E. J., Jr., 3212
 Craig, R. W., 4279, 6304
 Crenshaw, M. C., 2593
 Crist, S. A., 1373, 1378
 Crist, W. M., 6712
 Croce, C. M., 1553, 1574, 3818,
 3821, 5015s, 6712
 Croisy, A., 5770
 Cropp, C. S., 2490
 Cros, S., 2312
 Crouch, G. D., 4882
 Crowe, D. L., 3972
 Crum, C. P., 4423
 Crum, E. D., 875
 Cuddy, M., 6529
 Cueto, A., 4948
 Cullen, K. J., 4978
 Culouscou, J.-M., 2813
 Cunha, G. R., 4924
 Cunningham, D., 4052
 Curti, S., 6163
 Curtin, N. J., 2346
 Cuttitta, F., 1798
 Czajkowski, C. A., 3420
 Czerwinski, M., 4636

D

Daddona, P. E., 5716
 D'Aleo, C. J., 5744
 Dallmann, I., 6312
 Dallner, G., 3774
 Dalton, J. T., 4347, 5144
 Dalton, W. S., 995
 Damon, L. E., 4141
 Danels, Y. J., 1452
 Danforth, D. N., Jr., 1488
 Danforth, L., 2021
 d'Anglebermes, M., 1270
 Danhauser-Riedl, S., 43
 Daniel, E. M., 2063
 Danks, J. A., 3059
 Danks, M. K., 4213
 Danø, K., 4067
 Danyluk, J., 556
 Darzynkiewicz, Z., 1165, 3682,
 4828
 Das Gupta, T. K., 3768
 Dashwood, R. H., 2362
 Daugherty, J. P., 2041
 Dauvois, S., 2797, 3131
 D'Avanzo, B., 629
 Davidoff, A. M., 2605, 2979
 Davidson, K., 6273

Davidson, N. E., 162
 Davidson, N. O., 4305
 Davies, R. J., 4492
 Davies, S. M., 6592
 Davis, B. B., 514
 Davis, B. H., 1334
 Davis, B. M., 4815
 Davis, J., 5921
 Davis, M. A., 3900
 Davis, W. L., 5744
 Dawley, R. M., 514
 Dawson, M. I., 4804
 Day, N. K., 5123
 Dean, C. J., 123
 Dean, P. J., 5482
 DeAngelis, P., 336
 Deans, R. J., 1418
 de Belle, I., 528
 De Benedetti, F., 1158
 de Brauw, L. M., 1694
 de Britton, R. C., 4785
 de Bruijn, E. A., 1694, 4523
 Debruyne, F. M. J., 606, 2329
 Decker, R., 4131
 DeClerck, Y. A., 2151
 De Clue, J. E., 712
 Deerenberg, I. M., 6138
 de Franciscis, V., 4234
 de Goeij, C. C. J., 1930, 3843
 De Graff, W., 4287, 6622
 de Groot, T. J., 1930
 de Gruyil, F. R., 979
 DeHerdt, S. V., 2286
 Deisseroth, K., 4729
 Dejana, E., 2239
 de Jong, F. H., 3445
 de Jong, S., 5915
 de la Calle-Martin, O., 4436
 de la Chapelle, A., 4135
 DeLap, R. J., 3171
 de Launoit, Y., 2797, 4336, 5165
 Del Bino, G., 1165
 DeLeo, A., 5212
 Della Porta, G., 400, 6299
 Della Ragione, F., 3193
 Delmas, P. D., 2621
 Delmoro, C. M., 3814
 Delobelle, A., 5384
 Delsite, R., 3304
 DeLuca, H. F., 2021
 de Luise, M., 1750
 Demant, E. J. F., 5093
 Demetrio, M., 718
 Demuth, L., 807
 Deng-ao, J., 2307
 Denko, N. C., 4463
 Dennis, J. W., 718
 Denton, G. W. L., 5425
 De Pooter, C. M. J., 4523
 Deppe, G., 2848
 Dervan, P. A., 3296
 Desai, D. H., 1846
 Desantis, M., 6691
 Deschauer, B., 3590
 Detrisac, C. J., 481
 DeVathaire, F., 33
 Devilee, P., 1020

Devine, P. L., 5826
 DeVito, J., 3171
 de Vries, E. G. E., 73, 116, 5915
 Dewhirst, M. W., 3906
 Dezza, L., 536
 Dianzani, M. U., 4603
 Diaz-Rubio, M., 2098
 Dicke, F. P., 3345
 Dickson, R. B., 3590
 Diehl, V., 3702
 Dietrich, D. R., 3512
 Dietrich, K. D., 556
 Di Filippo, F., 652
 DiGiovanni, J., 1045, 1398
 Dilley, G. G., 3814
 Di Lorenzo, D., 4470
 Di Martino, D., 1733
 Dimitroff, K., 1851
 Dinarello, C. A., 2379, 2803
 D'Incalci, M., 199
 Dinney, C. P. N., 3741
 DiPette, D. J., 3612
 Di Pietro, S., 2572
 DiRado, M., 6615
 Discifani, C. M., 1339, 3762
 Dive, C., 799
 Dixit, V. M., 1645, 3648
 Dizdaroglu, M., 5837
 Djakiew, D., 3304
 Dlugosz, A. A., 4677
 Dobyns, K. A., 3733
 Dodd, S. W., 6363
 Dodge, R. K., 2979
 Doerfler, W., 3702
 Doherty, G. M., 2302
 Doi, S., 3544
 Dolan, M. E., 3367
 Dolara, P., 3721
 Dols, S., 3289
 Dominguez, J. M., 2720
 Don, A. L., 573
 Donahoe, P. K., 2101
 Donawho, C. K., 4176, 5893
 Donehower, R. C., 5781
 Dong, K.-W., 2577
 Dong, Q., 1581
 Dono, R., 1051
 Donovan, M. A., 5315
 Donowitz, M., 359
 Dooley, K. L., 4371
 Dooley, T. P., 3281
 Doppler, W., 5821
 Dorwin, S. A., 1876
 Dotzlaw, H., 2051
 Douillard, J.-Y., 1537
 Downs, E. C., 1339
 Dowsett, M., 5851
 Drabkin, H., 3821
 Dragani, T. A., 6299
 Drago, J. R., 4347, 5144
 Dray, S., 4516
 Dreyfus, M. G., 6094
 Drivsholm, L., 2879
 Drobniak, M., 6372
 Drouin, J., 2621
 Druck, T., 3821
 Drucker, D. J., 1196, 6351

Dubeau, L., 4045
 Dufau, E., 1039
 Dufour, M., 2797, 5165
 Dugan, M., 3643
 Dukes, M., 3867
 Dulhanty, A. M., 1860
 Dumanski, J. P., 4295
 Dumenco, L. L., 3391
 Dunnill, M. S., 261
 Dunsford, H. A., 1278, 1308
 Duong, M., 1434
 Duperray, C., 3224
 Durrant, L. G., 5425
 Dutlow, C., 2577
 Duty, L., 1521
 D'Uva, R., 536
 Dykes, D. J., 1979, 2837

E

Eader, L. A., 6596
 Earley, K., 5198
 Earp, H. S., 5238
 Eary, J. F., 5921
 East, C. J., 4701
 East, N., 4020, 6643
 Eastin, W. C., Jr., 1398
 Eastman, A., 5903
 Easton, D., 239
 Ebude, P., 3938
 Ebisuzaki, K., 1668
 Ecker, J., 4090
 Eckert, R. L., 3982
 Eddy, J., 688
 Edelstein, P. S., 4492
 Eder, J. P., 510, 1086
 Edgerton, S. M., 624
 Edler, L., 3456
 Edwards, C. L., 4257
 Edwards, M. L., 62
 Eggensperger, D., 2889
 Egle, A., 5821
 Egorin, M. J., 4360
 Eguchi, F., 4639
 Eguchi, K., 1472
 Eguchi, M., 341
 Ehlen, T., 4045
 Ehninger, G., 3427
 Ehsan, M. N., 5181
 Eibl, R. H., 6202
 Eick, S., 3243
 Eidne, K., 2577
 Eisenbach, L., 6372
 Eisenhauer, E., 6318
 Eisenkraft, B. L., 5881
 Ekimoto, H., 3229
 Eklind, K. I., 1846
 Ekstrand, A. J., 2164
 El-Bayoumy, K., 2826
 Elg, S., 4012
 Elion, G. B., 3906
 Elkind, M. M., 573, 2740
 Elliott, W. L., 4581
 Ellis, N. K., 1984
 Ellis, P. A., 5929
 Ellison, D. J., 3267
 Ellwein, L. B., 1766, 6493
 Elmore, L. W., 5752

* For title of article and coauthors, see listing in Contents of Volume 51 beginning on page i at the end of this index issue.

AUTHOR INDEX TO VOLUME 51*

Elsinga, P. H., 1930
 Elson, C. E., 37
 Elst, H. J., 4523
 El-Tahawy, A., 5806
 Embleton, M. J., 1990
 Embleton, M. J., 5433
 Emerson, J. L., 1766
 Emond, H. P., 405
 Endo, K., 990
 Endo, K., 1613
 Endo, T., 1701
 Endou, Y., 1034
 Engebraaten, O., 1713, 4643
 Engelhardt, R., 2524
 Engelman, R. W., 5123
 Engelmann, H., 5602
 English, H. F., 162, 1760
 Engstrom, P. F., 3171
 Enomoto, T., 5308
 Ensminger, W. D., 870, 3900
 Epelbaum, R., 780
 Epenetos, A. A., 724, 3251
 Epstein, A. L., 2694
 Epsztyn, S., 2179
 Erba, E., 199
 Erber, E., 1143, 2478
 Erickson, L. C., 1581, 1984
 Ericson, A., 3696
 Eriksen, B. L., 2403
 Eriksen, J., 4067
 Eriksson, L. C., 3774
 Erkelens, C., 1694
 Erlichman, C., 6318
 Esa, A. H., 682
 Esselink, M., 73
 Esteban, J. M., 2335, 3802, 5704
 Esterbauer, H., 1789
 Estey, E., 935
 Estival, A., 3633
 Esumi, N., 1185, 4549
 Ettenson, D., 1619
 Ettinger, D. S., 5781
 Eva, A., 4234
 Evans, A. E., 1426
 Evans, H. H., 5993
 Evans, J. W., 2636, 4463
 Evelhoch, J. L., 3108
 Even, J., 612
 Everitt, J., 2973, 4059, 4415
 Everson, P., 1883, 1891
 Ewart, K. L., 1515
 Ewing, C. M., 4716

F
 Fabbro, D., 632
 Fabian, C., 4238
 Fabregat, V., 4436
 Faderl, M., 3217
 Fair, W. R., 1544, 5405
 Fairchild, C. R., 1638
 Fairchild, R. G., 4588
 Falcioni, R., 1529
 Falk, L., 1158
 Fallavollita, L., 3578
 Faltynek, C. R., 1158
 Falvey, S., 4367
 Fan, D., 4549

Farber, E., 2751
 Farid, N. R., 2690
 Faris, R. A., 1308
 Fariselli, G., 2572
 Farkas-Himsley, H., 1359
 Farmer, E. R., 5786
 Farquhar, D., 6704
 Farr-Jones, M. A., 2430
 Faulkner, L., 4111, 5139
 Fausto, N., 2611, 4656, 5440
 Favaudon, V., 3204
 Fay, J., 4052
 Fazio, F., 5960
 Fegiz, G., 5378
 Feingold, K. R., 2803
 Feitelson, M. A., 4971
 Felder, B., 3802
 Felder, T. B., 935
 Feldman, D., 1823
 Feldman, G. M., 3011
 Feldman, L. E., 1065
 Feldman, M., 6372
 Felix, S. B., 43
 Fellinger, E. J., 336
 Ferber, A., 5997
 Ferguson, R. J., 549
 Fernandes, B., 718
 Fernandes, D. J., 1829
 Fernández, M. J., 2098
 Fernsten, P. D., 926, 3657
 Ferrari, S., 5491
 Ferrario, A., 6574
 Ferraro, T., 813
 Ferrell, R. E., 6385
 Ferrone, S., 1726, 4790, 6045
 Fey, M., 2092
 Fiala, E. S., 2826, 3143
 Ficari, F., 5378
 Fichtinger-Schepman, A. M., 4523
 Ficsor-Jacobs, R., 3331
 Fidler, I. J., 245, 2029, 2531, 3062,
 3741, 4549, 6292
 Field, F. G., 3807
 Fields, S. Z., 4955
 Fierro, M. T., 964
 Fiers, W., 2229, 2366, 2469, 2803
 Filpula, D. R., 6363
 Finch, M., 181
 Finke, J., 4199
 Finkelstein, M. A. J., 6363
 Finklestein, J. Z., 4871
 Finlay, T. H., 1092
 Finn, O. J., 2908
 Firestone, G. L., 6031
 Fischer, S. M., 850, 907, 5642
 Fisher, D. R., 4821, 5921
 Fisher, M., 1738
 Fisher, S. J., 3434
 Fitzgerald, D. J., 174, 2808, 2831,
 3011
 Fitzgerald, S. D., 105
 Fix, D. V., 5774
 Fleck, J. F., 4395
 Flegel, W. A., 3862
 Fleming, S., 422
 Flotte, T., 4964
 Floyd, J., 476

Floyd, R. A., 3882
 Foa, R., 964
 Fodstad, O., 2837
 Fohn, M., 1406
 Foidart, J., 405
 Foidart, J.-M., 405, 3624
 Fokas, A. S., 2084
 Foley, J., 1391
 Foley, J., 6338
 Foley, J. W., 1109, 2710
 Fong, A. T., 2362
 Fong, K. J., 2636
 Forastiere, A. A., 5781
 Ford, C. P., 5929
 Ford, H., Jr., 3733
 Ford, J. M., 67
 Forseth, B., 6273
 Foster, B. D., 3405
 Foster, C., 3497
 Foster, T. H., 3261
 Foulkes, W. D., 5329
 Fourney, R. M., 556
 Fournier, C., 5384
 Fraioli, R., 652
 Fraker, D. L., 2302
 Franceschi, S., 629
 Frankfurt, O. S., 1190
 Franks, C. R., 2456
 Frasca, V., 6125
 Frasci, G., 4898
 Frati, L., 1294, 2456, 5378
 Fraumeni, J. F., Jr., 2885, 3044,
 6094
 Frazier, D. L., 1680
 Fredman, P., 4643
 Fredrix, E. W. H. M., 6138
 Freed, J. J., 2973, 4415
 Freedman, R. S., 4257
 Freeman, J. W., 1973
 Freeman, M. R., 1910
 Frei, E., III, 780, 1086
 Freireich, E. J., 753
 French, D., 5378
 French, R. R., 2353
 Frenkel, K., 4443
 Freyer, J. P., 3831, 4072
 Friche, E., 4213, 5093
 Friedman, M., 1426
 Friedman, W. H., 612
 Fried, S. K., 863
 Friedman, E., 1154
 Friedman, H. S., 3906, 4721
 Friedman, N., 4287
 Friend, S. H., 5435
 Frincke, J. M., 6650
 Fritzberg, A. R., 676
 Frixen, U. H., 6328
 Frolik, C. A., 4395
 Frost, P., 1185
 Frühauf, S., 2943
 Fry, A. M., 6592
 Fry, D. W., 4581
 Fry, K. D., 3669
 Fry, R. J. M., 6539
 Fryburg, J. S., 1154
 Fuchigami, M., 4631
 Fuhrer, J. P., 2158

Fujie, K., 4038
 Fujii, A., 2319
 Fujii, H., 3471
 Fujii, N., 2922
 Fujii, S., 5888
 Fujimori, K., 4776, 4821
 Fujimori, M., 89
 Fujita, T., 6180
 Fujita, Y., 1448
 Fujita, Y., 5322
 Fujiwara, Y., 3237
 Fukaura, Y., 5123
 Fukazawa, N., 2420
 Fuks, Z., 2552, 6372
 Fukuda, M., 2854
 Fukui, S., 331
 Fukushima, S., 824, 2548
 Fulton, A. M., 2047
 Funahashi, A., 5596
 Funaki, K., 4059, 4415
 Funakoshi, I., 331
 Fung, P. Y. S., 1170
 Funke, I., 4712
 Fuqua, S. A. W., 105
 Furmanski, P., 5454
 Fürstenberger, G., 4328
 Furukawa, K., 2223
 Fuscoe, J. C., 6001
 Fusenig, N. E., 4402
 Fushida, S., 1034
 Futami, H., 6596
 Futscher, B. W., 1581

G

Gabriele, T., 2636
 Gaitan, E., 4785
 Galan, T., 5405
 Galanopoulos, T., 1345
 Galanos, C., 2524
 Galati, A. J., 365, 2063
 Gali, H. U., 2820
 Galivan, J., 3874
 Gallagher, C. H., 2773
 Gallagher, R. E., 2854
 Gallagher, R. P., 2307
 Gallick, G. E., 1452
 Gallo, M. A., 3938
 Gallo, M. G., 2808, 3781
 Gallo, R. C., 2670
 Gambone, J. C., 2124
 Gamsik, M. P., 3378
 Ganapathi, R., 6133
 Ganey, P. E., 2036
 Ganis, B., 3715
 Gansbacher, B., 150
 Ganther, H. E., 595
 Gao, C., 3753
 Garber, J. E., 6094
 Garbisa, S., 439
 Garcia, I., 294
 Garcia, M., 5679
 Garcia, R., 1452
 Garg, A., 5198
 Garg, P. K., 4164
 Garin-Chesa, P., 336
 Garland, E. M., 1766, 1778, 3471
 Garnett, M. C., 1990

* For title of article and coauthors, see listing in Contents of Volume 51 beginning on page i at the end of this index issue.

AUTHOR INDEX TO VOLUME 51*

Garrido, F., 2463, 4948
 Garrido, M. A., 5716
 Garte, S. J., 4810
 Gatenby, R. A., 2542
 Gatter, K. C., 261, 5976
 Gattone-Celi, S., 3164
 Gautam, S. C., 6133
 Gavéraux, C., 4226
 Gavin, J. B., 77
 Gavosto, F., 964
 Gazdar, A. F., 1708, 4999, 6142
 Gazer, J.-C., 1817
 Gazzaniga, G. M., 2273
 Gazzera, S., 2566
 Geacintov, N. E., 3482
 Gelboin, H. V., 1059, 4636
 Gelin, J., 415, 880
 Geng, C.-S., 3131
 Genua, G., 4898
 Genz, T., 4712
 Georgiadis, P., 5843
 Gerlach, J. H., 3345
 Geroni, C., 199
 Gerson, S. L., 3391
 Gervasoni, J. E., Jr., 4955
 Gerwin, B. I., 4090
 Getzenberg, R. H., 6514
 Geurts-Moespot, A., 4544
 Geyer, C., 6529
 Ghatei, M. A., 5205
 Ghetie, M.-A., 1482, 5876
 Ghetie, V., 4052
 Gheuens, E. E. O., 4523
 Ghigo, D., 1741
 Giaccia, A. J., 2636, 4463
 Giacomini, P., 652
 Giavazzi, R., 6358
 Gibbons, G. R., 969
 Gibson, N. W., 6586
 Gibson, S. L., 1836
 Gibson, V., 836, 857, 4199
 Gibson, W., 5579
 Gilbert, K., 4613
 Gilbertson, J., 3497
 Gilboa, E., 150
 Gilchrist, K. W., 3323
 Gill, G. N., 6170
 Gill, R., 3497
 Gillespie, A. J., 6079
 Gilman, S. C., 5744
 Giocanti, N., 3204
 Giovanella, B. C., 3052, 6636
 Giudici, G., 6358
 Gladson, C. L., 4986
 Glass, J., 3159
 Glasser, S. R., 5943
 Glatstein, E., 5065s
 Glatt, H., 1659
 Glattre, E., 1234
 Gleason, M. C., 995
 Gleave, M., 3753
 Glennie, M. J., 2353
 Glick, R. P., 3030
 Glickson, J. D., 3378
 Glode, L. M., 4299
 Glogowski, J., 190
 Godwin, K. S., 5467

Goeckeler, W., 2889
 Goepel, J. R., 2490
 Goff, B. A., 4762
 Gogusev, J., 5712
 Gold, A., 6163
 Goldberg, I. D., 5315
 Goldblatt, S. A., 5760
 Goldenberg, D. M., 1619, 3102, 4192, 4594
 Goldenberg, S., 1638
 Goldfinger, N., 5232
 Goldmacher, V. S., 6236
 Goldsmith, M. E., 587
 Goldstein, A. M., 1793, 6094
 Goldstein, D., 4155
 Goldstein, I. J., 657
 Goldstein, J., 1391
 Goldstein, L. J., 1478
 Goldsworthy, T., 1391
 Golightly, S., 476
 Goltzman, D., 6521
 Gomer, C. J., 4243, 6574
 Gomi, K., 110, 4888
 Gomm, J. J., 4685
 Gong, Y., 5476
 Gonzales, J., 1014
 Gonzalez, A., 1922
 Gonzalez, A., 4948
 Gonzalez, F. J., 4636, 6622
 Gonzalez, G. G., 2932
 González, J. F., 2098
 Good, R. A., 5123
 Goodrow, T., 1148
 Goodrow, T., 6615
 Gope, M., 5626
 Gordon, D. G., 3857
 Gordon, G. B., 476, 1366
 Gorelik, E., 227, 1521, 5153, 5212, 6210
 Goss, M. W., 3281
 Gottesman, M. M., 1478, 1638, 5417
 Gould, M. N., 2642, 5298, 5649
 Gout, P. W., 282
 Gouw, A., 5915
 Graeven, U., 4853
 Graham, R. A., 841
 Grahn, D., 4125
 Grant, S. G. N., 4917
 Grasso, P., 6415, 6452, 6470
 Gratama, J. W., 2324
 Grau, C., 707
 Graver, M., 4131
 Gray, G. S., 2077
 Gray, R., 6415, 6452, 6470
 Graziella Persico, M., 1051
 Grdin, D. J., 4125
 Green, H. A., 288
 Greenberg, H. S., 870
 Greenberg, J. P., 3482
 Greenberg, R. S., 3044
 Greene, D. R., 4084
 Greene, G. L., 239
 Greenoak, G. E., 2773
 Greenspan, J. S., 1014
 Greger, B., 3427
 Gregory, W. M., 1210

Greiner, J. W., 926, 4155, 5694
 Grem, J. L., 1651
 Gridley, D. S., 1515
 Griffin, T. W., 255, 4316
 Griffiths, A., 1668
 Griffiths, G. L., 4594
 Grigioni, W. F., 439
 Grimm, E. A., 3669
 Grindey, G. B., 6110
 Grisham, J. W., 5238
 Griswold, D. P., Jr., 1979, 2837
 Grochow, L. B., 5781
 Grogan, T. M., 995, 2720
 Groopman, J. D., 5501, 6185
 Groot, K., 4757
 Grooten, J., 2229
 Groschen, S., 2015
 Gross, M. E., 1452
 Grossman, L., 5786
 Grove, D. S., 82
 Grueneberg, D. A., 2268
 Grummer, M., 37
 Grundel, R., 1003
 Grunfeld, C., 2803
 Grunicke, H. H., 807, 5821
 Grusky, M. E., 6596
 Gschmeissner, S., 4020
 Guadagni, F., 4155
 Guarini, A., 964
 Gudas, L. J., 3972
 Guénard, D., 4845
 Guengerich, F. P., 5284
 Guérinne-Voegelein, F., 4845
 Guerquin-Kern, J.-L., 5770
 Guerrini, D., IV, 3334, 4853
 Guille, J. G., 1571
 Gulati, S., 4828
 Gullick, W. J., 3296
 Gumerlock, P. H., 1632
 Gunji, H., 741, 6636
 Günther, U., 5292
 Guo, J. Q., 3048
 Guo, Z., 4798
 Gupta, R. C., 5198
 Gurnani, M., 2762
 Gurpide, E., 5476
 Gurtoo, H. L., 886
 Gurwith, M., 1499
 Gusberg, S. B., 4114
 Guthrie, J., 6031
 Guthrie, P. D., 1910
 Gutowski, M. C., 5471, 5774
 Guy, J., 6199

H

Haagen, I. A., 3224
 Haagensen, D. E., 4336
 Habraken, Y., 499, 1217
 Habres, J. M., 5539
 Hackenberg, R., 5722
 Hacker, H. J., 1952
 Hadam, M., 6312
 Hager, L. G., 5728
 Haggitt, R. C., 5482, 5766
 Haghghi, B., 1720
 Hagiwara, A., 5655
 Hahn, G. M., 2636, 5910, 6608

Hailey, J. A., 1339
 Haimanot, R., 5430
 Haimovitz-Friedman, A., 2552
 Hait, W. N., 67
 Hakomori, S., 2879
 Hakomori, S.-i., 1406, 1613, 2199, 6019
 Hakomori, S.-i., 4310
 Halachmi, E., 612
 Haldorsen, T., 1234
 Haley, C. L., 1326
 Haley, J. D., 4828
 Hall, T. C., 4192
 Hallahan, D. E., 4565, 6393
 Halline, A. G., 5608
 Halliwell, B., 5837
 Hamada, N., 5123
 Hamilton, S. R., 476
 Hamilton, T. A., 6133
 Hamilton, T. C., 5107
 Hammerling, G. J., 729
 Hammond, G. D., 4871
 Hampton, L. L., 5929
 Han, F.-S., 1755
 Hanahan, D., 4917
 Hanawalt, P. C., 2867
 Hancock, M. C., 4575
 Hancock, S. L., 2280
 Hand, P. H., 181, 3657
 Handa, S., 1701
 Handgrettinger, R., 144
 Haneda, H., 6346
 Hann, H.-W. L., 6176
 Hannigan, G. E., 3958
 Hansen, H. H., 5093
 Hansen, H. J., 4594
 Hanski, C., 5342
 Hanson, J., 556
 Hansson, J., 94, 3384
 Hanzawa, Y., 2599
 Hao, Z., 3733
 Hara, I., 4250
 Hara, M., 434
 Hara, T., 1701
 Harada, H., 89
 Harada, M., 6346
 Haraguchi, M., 3503
 Haramaki, N., 3555
 Haran, M. S., 1855
 Hardcastle, J. D., 5425
 Hardman, W. E., 6388
 Harlow, S. P., 2403
 Harmon, J. M., 5224
 Harning, R., 5003
 Harrigan, P., 4111
 Harris, A. L., 261, 2346, 5976, 6592
 Harris, C. C., 365, 2490, 3793, 4090, 4102, 5023s, 5219, 5370
 Harris, E. L., 1793
 Harris, M. N., 3643
 Harris, N., 2577
 Harrison, C. L., 468
 Harrison, S. D., Jr., 1979, 2837
 Hart, I. R., 3281, 4768, 6660
 Hartley, J. A., 6592
 Hartman, S., 2268

* For title of article and coauthors, see listing in Contents of Volume 51 beginning on page i at the end of this index issue.

AUTHOR INDEX TO VOLUME 51*

Hartmann, M., 1811
 Hartmann, O., 33
 Haruma, K., 2926
 Harvey, E. J., 5993
 Harvey, H., 4149
 Hasan, T., 4410, 4762
 Haschek, W. M., 4613
 Hasegawa, R., 2548
 Haskard, D. O., 4768
 Hass, G. M., 1876
 Hata, H., 195
 Hata, J.-i., 5937
 Hatch, K. D., 568
 Hattori, H., 4182
 Hattori, T., 6084
 Hauck, W., 3526
 Haussler, M. R., 239
 Havlin, K. A., 6268
 Hawkins, P. A., 4581
 Hayashi, K., 3356, 5520, 5800
 Hayashi, M., 2582
 Hayashi, N., 4924
 Hayashi, S.-i., 5177
 Hayashi, Y., 1286
 Hayden, J. H., 4942
 Hayes, C., 595
 Hayes, D. F., 3838
 Hayes, R. B., 3445
 Hayman, J. A., 3059
 Hayward, N. K., 4367
 He, J., 1684
 He, X., 3339
 Hearing, V. J., 5212
 Hebert, J. R., 6510
 Hecht, S. S., 1846, 5495, 5557
 Hecquet, B., 5384
 Hedayati, M. A., 5786
 Hedley-Whyte, E. T., 1345
 Heid, C., 4238
 Heiger-Bernays, W. J., 1866
 Heim, S., 954
 Hein, D. W., 549
 Heitjan, D. F., 1760
 Heitman, D. W., 6388
 Held, T. N., 3612
 Hedin, C.-H., 5087
 Helman, L. J., 174, 4882
 Helzlouer, K. J., 1366
 Hemstreet, G. P., III, 2762
 Henderson, B. E., 2307, 3617
 Henderson, J., 6521
 Henderson, M. A., 3059
 Hendricks, C. B., 5781
 Hendricks, J. D., 2362
 Hendriks, B. T., 2329
 Henn, M., 3643, 5003
 Hennings, H., 4206
 Henry, S., 6668
 Henslee, J. G., 1876
 Heo, D. S., 3891
 Heppner, G. H., 4378
 Herberman, R. B., 1521, 3891, 4355, 5153, 6153
 Herbst, H., 3243
 Herdt, J., 688
 Herfarth, C., 729
 Herlyn, M., 2205, 4853
 Herman, T. S., 780, 1086
 Hermans, J., 1694
 Hermonat, P. L., 3373
 Herold, M., 6250
 Herrero, R., 4785
 Herrington, P. N., 422
 Herrlich, P., 5292
 Herscovics, A., 3136
 Hershberg, R., 150
 Hertel, L. W., 6110
 Herter, M., 144
 Hess, A. D., 682
 Hester, S., 5361
 Heur, Y.-H., 2063
 Heuvel, J. J. T. M., 4544
 Hicks, L., 3733
 Hickson, I. D., 6592
 Hida, T., 2416
 Hidaka, H., 4271
 Hidaka, T., 3555
 Higashi, H., 1242
 Higashiyama, M., 3544
 Higuchi, T., 3958
 Hiki, Y., 4631
 Hikiji, K., 820
 Hilf, R., 1836, 3261
 Hilkens, J., 4028
 Hill, B. T., 4557
 Hill, H. Z., 3451
 Hill, L. L., 4937
 Hill, R. P., 1359
 Hill, S., 4978
 Hilton, J., 2410, 4360
 Hindenburg, A. A., 4955
 Hinds, M., 4729
 Hingerty, B. E., 3482
 Hino, O., 89, 1460
 Hinoda, Y., 2599
 Hinrichs, S. H., 6686
 Hinson, N. A., 2965
 Hinz, H. R., 3052, 6636
 Hirohashi, S., 2185, 2199, 3056, 4876, 5520, 5800
 Hirohata, T., 2842
 Hirose, M., 824, 2902, 5655
 Hirose, T., 4323
 Hirota, K., 5956
 Hirota, Y., 4187
 Hirsch, K. S., 4395
 Hiserodt, J. C., 4931
 Hixson, D. C., 1308
 Hiyama, E., 1946
 Hiyama, K., 1946
 Ho, J. J. L., 372, 1026
 Ho, S. B., 1026
 Hobbs, P. D., 4804
 Hochster, H., 3643
 Höckel, M., 3316, 6098
 Hoel, D. G., 6409
 Hofer, D. R., 2780
 Hoffman, R., 3886
 Hofmann, G. A., 5813
 Hofmann, J., 5722
 Hofmann, J., 5821
 Hofmann, M., 5292
 Hogan, M., 2041
 Hogan, V., 2173, 3507
 Holcenberg, J. S., 4871, 6079
 Holden, S. A., 780, 1086
 Holinka, C. F., 5476
 Höcker, I., 3702
 Holland, J. C., 939
 Holland, J. F., 55
 Holland, L., 2205
 Hollas, W., 3690
 Hollema, H., 5915
 Hollis, L. S., 1866
 Hollenstein, M. C., 4102
 Holly, E. A., 1014, 1370
 Holmes, L., 6073
 Holtermann, G., 1039
 Holzel, F., 5722
 Hom, D. K., 5903
 Homan, S. M., 6558
 Homma, C., 5937
 Honda, S., 6656
 Hong, J.-Y., 1509
 Hong, W. K., 3669
 Honma, Y., 2582, 4535, 4649
 Hooi, D. S. W., 1990
 Hopman, A. H. N., 644, 1959
 Hori, A., 6180
 Hori, T.-a., 4707
 Horie, T., 331
 Horii, A., 3544
 Hornik, V., 5602
 Horsman, D. E., 282
 Horwith, G., 1499, 5614
 Hoshiya, T., 318
 Hosking, L. K., 4557
 Hosono, M., 990
 Hotchkiss, J. H., 3925
 Houchens, D., 2889
 Houghton, P. J., 6286
 Houlihan, W. J., 43
 Howard, R. B., 3274
 Howell, B., 504
 Howell, S. B., 5903
 Howley, P. M., 5019s
 Hozumi, M., 2582, 4535, 4649
 Hsieh, J.-T., 3753
 Hsieh, L.-L., 1720
 Hsing, A. W., 3068
 Hsu, F. F., 514
 Hu, C-p., 1898
 Hu, L., 3972
 Hu, S-X., 2735, 4481, 5736
 Hu, X. F., 1750
 Huang, A. T., 3037
 Huang, D. H., 886
 Huang, D-Y., 4724
 Huang, E. Y. W., 6514
 Huang, J., 1026
 Huang, M-T., 813
 Huang, P., 6110
 Huang, Q., 1059
 Huang, Y., 1384
 Huang, Y., 5766
 Huber, H., 6250
 Huber, W., 666, 1789

Huberman, E., 4565
 Hudes, G. R., 3080
 Hudson, M. A., 3726
 Huebner, K., 1553, 3818, 3821
 Huggett, A. C., 5929
 Huggins, R., 1750
 Hughes, L. R., 5579
 Hui, T. E., 5921
 Hülsler, D., 5348
 Humphrey, P. A., 2979, 3339
 Hung, M-C., 3362
 Hunt, A. J., 2077
 Hunt, B., 1185
 Hunt, J. M., 1278
 Hunter, N., 3639
 Huot, J., 5245
 Hursey, M. L., 1247
 Hurst, R. E., 2762
 Husain, Z., 4964
 Husmann, M., 4804
 Hussain, N. S., 3143
 Hussein, A. M., 3329
 Hussein, S., 1738
 Hutchins, J. T., 1418
 Hutzell, P., 181
 Huybrechts, J. J., 4523
 Huynh, H. H., 3677
 Hwang, Y. C., 3108

I

Iacobelli, S., 1294
 Iaffaioli, R. V., 4898
 Ichihara, A., 6677
 Ichikawa, T., 3788
 Ichikawa, Y., 3788
 Ichinose, I., 5392
 Igarashi, Y., 1613, 6019
 Iglehart, J. D., 2605, 2979
 Ihde, D. C., 1708
 Ishi, H., 785, 2863, 3493, 6150
 Izuka, Y., 5859
 Ikada, Y., 5532
 Ikawa, Y., 99
 Ikegami, Y., 4903
 Ikenaga, M., 2113
 Iliakis, G., 5113
 Imai, K., 2599
 Imai, K., 5177
 Imaida, K., 2902
 Imamura, M., 2113
 Imamura, S., 6219
 Imamura, T., 89
 Imanishi, K., 4631
 Imber, R., 632
 Inagake, M., 4310
 Ingamells, S., 2353
 Inoue, M., 5308, 5951
 Inoue, T., 3212
 Ioannides, C. G., 4257
 Ip, C., 595, 6118
 Ip, M. M., 2786
 Irie, R. F., 2002, 5687
 Irimura, T., 387, 5728
 Irino, S., 3886
 Irita, Y., 2842
 Irwin, J. C., 3982
 Isaacs, J. T., 162, 1591, 3788, 4693

* For title of article and coauthors, see listing in Contents of Volume 51 beginning on page i at the end of this index issue.

AUTHOR INDEX TO VOLUME 51*

Isaacs, R. J., 528
 Isaacs, W. B., 4716
 Ishibashi, H., 2842
 Ishida, R., 4903, 4909
 Ishida, T., 1494, 3522, 4008
 Ishida, T., 2599
 Ishihara, H., 4182
 Ishihara, H., 4450
 Ishihara, T., 341
 Ishii, N., 5667
 Ishikawa, J., 820, 4707, 5736, 5817
 Ishikawa, M., 3710
 Ishikawa, T., 89
 Ishizaki, K., 2113
 Islas, A. L., 2867
 Isobe, H., 6346
 Isoe, T., 157, 921
 Isom, H. C., 5440
 Isonishi, S., 5903
 Isselbacher, K. J., 3164
 Itaya, T., 1185
 Itkonen, O., 2107
 Ito, H., 2926
 Ito, H., 3639
 Ito, N., 318, 824, 1264, 5655
 Ito, N., 4080
 Ito, T., 255
 Itoh, K., 2029
 Iwahana, M., 903
 Iwai, J., 3148
 Iwama, T., 2874
 Iwasaki, S., 1264
 Iwashima, A., 1448
 Iwashita, S., 5859
 Iwata, J., 3327
 Iwata, K. K., 4828
 Iwatsuki, S., 6153
 Iype, S. N., 1606, 4287
 Izumi, S., 4038

J
 Jachez, B., 4226
 Jackman, A. L., 5507, 5579
 Jackson, J. E., 2593
 Jacobson, J. O., 6103
 Jacoby, R. F., 4305
 Jacrot, M., 2566
 Jahnke, K., 6328
 Jain, R. K., 265, 1352, 1561, 2727,
 3119, 3612, 6691, 6695
 Jakate, S. M., 2720
 Jakubowski, A., 3096
 Jambrosic, J. A., 2205
 James, C. D., 1684, 2164
 James, S. M., 2373
 Jamil, N., 556
 Jani, J. P., 227
 Jankun, J., 1221
 Jansen, G., 5507
 Jansen, R., 4729
 Jardillier, J. C., 1996
 Jarman, M., 5851
 Jaroszewski, J. W., 1638
 Jarrett, K. A., 3831, 4072
 Järvinen, H., 4135
 Jasti, R., 581
 Jastorff, B., 1600, 6207

Jaszewski, R., 3416
 Jaworsky, C., 4937
 Jay, G., 5212, 6686
 Jehl, F., 2073
 Jenkin, J., 6280
 Jenkin, R. D. T., 2885
 Jenkins, C., 1680
 Jenkins, D. C., 6073
 Jenkins, H., 556
 Jensen, P. B., 5093
 Jensen, P. S., 5093
 Jerome, K. R., 2908
 Jewett, P., 6142
 Jhanwar, S. C., 1544, 5410
 Ji, C., 1059
 Jilg, W., 27
 Jirtle, R. L., 130
 Johannsson, S. L., 1766
 Johansson, B., 954
 Johansson, S. L., 4388
 Johns, D. G., 3733
 Johnson, B. E., 1708
 Johnson, C., 123
 Johnson, C. S., 5454
 Johnson, D. A., 2965, 5471, 5774
 Johnson, D. K., 255
 Johnson, F. E., 6558
 Johnson, H. M., 5304
 Johnson, J. A., 1783
 Johnson, J. T., 3891
 Johnson, R. C., 394
 Johnson, R. K., 5813
 Johnston, M. R., 3274
 Johnston, P. G., 6668
 Jollow, D. J., 2536
 Joncourt, F., 2092
 Jones, D., 5876
 Jones, P. A., 3617
 Jones, P. H. M., 2885
 Jones, P. L., 2762
 Jones, R. T., 3793
 Jones, S. A., 5454
 Jones, T. A., 5329
 Jonsson, N., 954
 Jordan, K. G., 1846
 Jordan, M. A., 2212
 Joseph, C., 2826
 Jücker, M., 3702
 Judson, I. R., 5579
 Juhasz, F., 2690
 Julian, J. A., 5943
 Juliano, R. L., 1738
 Juliusson, G., 5570
 Jung, D., 2307
 Jung, E. G., 3456
 Jung, J. K., 4146
 Jungnelius, U., 94
 Jurcisek, J. A., 1564

K
 Kabat, G. C., 6510
 Kacinski, B. M., 5315
 Kadlubar, F. F., 4371
 Kaffka, K. L., 1823
 Kagawa, S., 6677
 Kageshita, T., 1726, 4790
 Kahl, S. B., 4588

Kahn, L. B., 4131
 Kaighn, M. E., 365
 Kajigaya, S., 4649
 Kajikawa, F., 215
 Kajiyama, G., 2926
 Kakehi, Y., 949
 Kakeji, Y., 3503
 Kakinuma, H., 5487
 Kalechman, Y., 1499, 5614
 Kallman, R. F., 2280
 Kalnicki, S., 6695
 Kalvelage, H., 43
 Kamada, N., 381
 Kamen, B. A., 6125
 Kamidono, S., 820, 5736
 Kanayama, H.-o., 6677
 Kanda, H., 3257
 Kanda, Y., 110
 Kane, R., 6323
 Kaneko, S., 4008
 Kaneko, Y., 2677
 Kaneko, Y., 5937
 Kanematsu, T., 2842
 Kan-Mitchell, J., 1418
 Kantor, A. F., 6094
 Kantor, J. A., 3657
 Kanzaki, T., 2133
 Kaplan, D., 2889
 Kaplan, D. R., 875
 Kaplan, O., 1638
 Kapuscinski, J., 3682
 Karakousis, C. P., 422
 Karp, J. E., 753, 3534, 4743
 Karras, J. G., 3193
 Kasahara, K., 3237
 Kasai, M., 110
 Kasayama, S., 4323
 Kashimoto, S., 215
 Kashmiri, S., 181
 Kasper, H., 4238
 Kasprzak, K. S., 5837
 Kastan, M. B., 3534, 4279, 6304
 Kasuga, T., 434
 Kasukabe, T., 4535, 4649
 Kasumi, F., 5794
 Kaszkin, M., 4328
 Katagiri, H., 4450
 Katagiri, Y., 1286
 Kataoka, K., 3229
 Kataoka, K., 3919
 Kath, R., 2205, 4853
 Kathmann, I., 5507
 Kato, A., 1242
 Kato, S., 1242
 Kato, T., 1264
 Katsanis, E., 2127
 Katsuda, S., 2015
 Katz, B., 612
 Katz, J., 1092
 Katzav, S., 6712
 Kauffman, F. C., 4511
 Kaufmann, S. H., 581, 1129, 3534
 Kaufmann, W. K., 2960
 Kaveri, S.-V., 6045
 Kawada, S.-z., 2922
 Kawahata, R. T., 4219
 Kawai, T., 1242

Kawajiri, K., 5177
 Kawakami, Y., 5888
 Kawakami, Y., 6346
 Kawakita, M., 1701
 Kawasaki, T., 331
 Kawase, Y., 2223
 Kawata, M., 2655
 Kawata, S., 4080
 Kawato, Y., 4187
 Kazakoff, K., 4757
 Keane, P., 724
 Keating, M., 935
 Keenan, A. M., 688
 Kehrer, J. P., 542
 Keller, J. B., 2084
 Kelley, J. A., 1803
 Kelloff, G. J., 481, 3069, 4528
 Kelly, S. A., 4020
 Kende, A. S., 6568
 Kennan, W. S., 2642, 5298, 5649
 Kennel, S. J., 1529
 Kensler, T. W., 5501
 Kera, K., 2655
 Kerbel, R. S., 985, 4486
 Kerns, B.-J. M., 2605, 2979
 Kerr, I. G., 6318
 Kerrigan, D., 6280
 Kerschmann, R., 3807
 Kessel, D., 4665
 Kessin, R. H., 1600, 6207
 Keyomarsi, K., 3602
 Keyse, S. M., 3384
 Khachab, M., 1766
 Khan, K. N., 5667
 Kharbanda, S., 741, 6636
 Khawli, L. A., 2694
 Khazaeli, M. B., 5461
 Khokhar, A. R., 2994
 Kidd, L., 2395
 Kiehntopf, M., 5342
 Kienhuis, C. B. M., 4544
 Kievits, T., 1020
 Kihana, T., 3056
 Kikuchi, A., 2223
 Kikuchi, K., 4250
 Kikuchi, M., 4639
 Kilbourn, R. G., 2531
 Kilian, P. L., 1823
 Killion, J. J., 3741
 Kim, M., 5212
 Kim, N., 1051
 Kim, S.-G., 3108
 Kim, S. J., 4146
 Kim, Y. S., 372, 1026
 Kimbell, R., 5579
 Kimchi, N., 612
 Kimes, B. W., 753
 Kimura, G., 1494
 Kimura, H., 1034
 Kimura, H., 2655
 Kimura, N., 2917, 4639
 Kimura, S., 6019
 Kinders, R. J., 1876
 King, C. M., 2902
 King, C. R., 445
 King, D., 181, 5461
 King, V., 6323

* For title of article and coauthors, see listing in Contents of Volume 51 beginning on page i at the end of this index issue.

AUTHOR INDEX TO VOLUME 51*

Kinoshita, N., 5888
 Kinouchi, T., 3919
 Kinsella, A. R., 1855
 Kinzel, V., 4328
 Kirchner, H., 6312
 Kirito, K., 1940
 Kirk, G. A., 6650
 Kirk, M. C., 499
 Kirkwood, J. M., 6691
 Kirley, S. D., 2710
 Kirlin, W. G., 549
 Kirsch, T., 1499
 Kisiel, W., 349
 Kiso, S., 4080
 Kitagawa, H., 331
 Kitagawa, H., 2599
 Kitagawa, T., 89, 3257
 Kitagawa, Y., 1504
 Kitajima, S., 2133
 Kitamura, K., 4310
 Kitao, Y., 1448
 Kitchingman, G., 5440
 Kitson, J., 3910
 Kiyokawa, H., 2842
 Kjeldsen, T. B., 2879
 Klann, R. C., 5642
 Klaude, M., 3965
 Kleihues, P., 6202
 Klein, B., 3224
 Klein, G., 4481
 Klein, J., 857
 Kleinman, H. K., 3624
 Klein-Szanto, A. J. P., 3793, 4097,
 6615
 Kleynerman, L., 4131
 Klier, F. G., 4986
 Klingelhutz, A. J., 3323
 Klostergaard, J., 3362
 Klug, T. L., 468
 Klusens, L. F., 2720
 Knabbe, C., 3590
 Knapp, F. F., Jr., 4594
 Kneba, M., 3243
 Knoop, C., 3316, 6098
 Knowles, B. B., 6176
 Knowles, R. G., 6643
 Knox, R. J., 123
 Knudson, A. G., Jr., 2973, 4415,
 5435
 Knudson, W., 897
 Kobari, S., 4639
 Kobata, A., 1701
 Kobayashi, E., 110
 Kobayashi, T., 3544
 Kochevar, I. E., 288
 Kodaira, S., 2199
 Kodama, S., 1934
 Koeller, J. M., 6268
 Koenders, P. G., 4544
 Koerner, F. C., 624
 Koga, S., 2842
 Kohn, K. W., 6550
 Kohno, K., 3951
 Kohsaka, M., 4038
 Koi, S., 5118
 Koivunen, E., 2107
 Koizumi, M., 990

Koji, T., 5667
 Kojima, A., 1472
 Komada, F., 4271
 Komatsu, N., 341
 Komeshima, N., 157
 Komiya, K., 3237
 Komschlies, K. L., 6596
 Kondo, K., 764, 5398
 Koniecki, J., 1465
 Konishi, J., 990
 Konn, S., 4250
 Konno, A., 4250
 Konno, Y., 3886
 Kono, M., 110
 Kopp, R., 205
 Koprowski, H., 3334
 Korbelik, M., 2251
 Korc, M., 6243
 Kordowska, J., 1465
 Korenaga, D., 3503
 Koretz, K., 729
 Körfer, A., 6312
 Kornfeld, S. B., 1689
 Korngold, R., 4937
 Koros, A. M. C., 6142
 Korzekwa, K., 4636
 Kosaka, T., 573
 Koshiba, M., 949
 Kotler, M., 2179
 Koukouli, G. K., 2720
 Koyasaki, N., 2683
 Kozai, Y., 6180
 Kozarsky, K. F., 2395
 Kozielski, A. J., 3052
 Kozikowski, A. P., 2511
 Kozlowski, J. M., 2780
 Kraemer, K. H., 3177
 Kragel, P., 2649
 Krailo, M. D., 4871
 Krainer, M., 6250
 Kratz, D. A., 6025
 Kraupp-Grasl, B., 666, 1789
 Kraus-Berthier, L., 2312
 Krause, B. E., 556
 Krausz, T., 724, 3251
 Kreitman, R. J., 2831
 Kremer, M., 1537
 Kremer, R., 6521
 Krieger, G., 3243
 Krigel, R. L., 3910
 Krikorian, A., 2073, 5384
 Kripke, M. L., 4176, 5893
 Krishna, M. C., 6622
 Krishna, S., 4955
 Kristensen, P., 4067
 Kristiansen, J. J., 1370
 Kristjansen, P. E. G., 5160
 Kritchevsky, S. B., 3198
 Krohn, K. A., 5921
 Krosel, G., 2251
 Krushelnicky, B. W., 2430
 Kruszewski, F. H., 4206
 Ksander, B. R., 3153
 Kubonishi, I., 1574, 3327
 Kubota, T., 2199
 Kudryk, B. J., 349, 354
 Kuerbitz, S. J., 4279

Kufe, D. W., 741, 3838, 4476,
 4565, 6636
 Kuga, H., 4187
 Kuhn, J. A., 2335, 3802
 Kuhn, J. G., 6268
 Kuhns, W., 1257
 Kuipers-Dijkshoorn, N., 1020
 Kukuruga, D., 4665
 Kulesz-Martin, M. F., 4701
 Kumaki, T., 2683
 Kun, C., 2307
 Kuniyoshi, J., 4994
 Kunz, L. L., 676
 Kunzmann, R., 5722
 Kupfer, D., 6052
 Kurachi, H., 5322, 5951, 5956
 Kuranami, M., 4631
 Kurata, Y., 2548
 Kuriya, N., 1726
 Kurnick, J. T., 3164
 Kurokawa, K., 2677
 Kusakabe, M., 3257
 Kushner, B. H., 4865
 Kushtai, G., 5602
 Kusumoto, Y., 5667
 Kuszak, J. R., 2720
 Kutter, D., 4712
 Kuwano, H., 5339
 Kuwano, M., 3951
 Kuzumaki, N., 6346
 Kuzuoka, M., 2199
 Kwast-Welfeld, J., 528
 Kye, E. A., 1270
 Kyprianou, N., 162, 4693

L

Labrie, F., 2797, 3131, 4336, 5165
 LaCreta, F. P., 2041, 3080, 3171,
 6059
 Ladero, J. M., 2098
 Laerum, O. D., 4643
 LaForgia, S., 3821
 Laguza, B. C., 2965
 Laiming, V. A., 4785
 Lakshmi, V. M., 514
 Lalitha, V. S., 3018
 Lambek, C., 4828
 Lambert, G. R., 5198
 Lambert, H., 5245
 Lambert, J. M., 6236
 Lamers, C. H. J., 2324
 Lampasona, V., 6358
 Lampert, D. T. A., 1026
 Lancaster, S., 1760
 Lanciotti, M., 4342
 Landberg, G., 4570
 Lando, D., 6643
 Landry, J., 5245
 Lane, C., 4012
 Lane, D. P., 5976
 Lane, J. M., 336
 Lange, B., 6712
 Lange-Carter, C. A., 6699
 Langley, K. E., 2151
 Langstein, H. N., 2302
 Langton, B. C., 2593, 4575
 Lans, J. I., 3416

Lapiere, C. M., 405
 Larocca, D., 4994
 Larson, S. M., 688
 Larsson, S-E., 3585
 Laskin, J. D., 813
 Laskowitz, D. T., 3906
 Lasley, J., 6163
 Laster, B. H., 4588
 Latham, K. M., 4455
 Latham, M. D., 6543
 Latif, F., 1071
 Lau, D. H. M., 5181
 Lauchner, L. J., 1922
 Laude, M., 4516
 Lauris, M. K., 682
 Lauri, D., 2239
 Lavagnini, P., 2636
 Laval, F., 1217
 La Vecchia, C., 629
 Lavelle, F., 4845
 Lavielle, G., 2312
 Law, J. C., 6385
 Law, K. L., 2965
 Lawrence, T. S., 870, 3900
 Lawrence, W. D., 2848
 Layton, G. T., 5826
 Lazar, C. S., 6170
 Lazo, J. S., 227, 893, 2511, 5903
 LeBerthon, B., 2694
 Leblanc, J., 1078
 Lebovitz, M. D., 2720
 Ledley, F. D., 4729
 LeDoux, S. P., 775
 Lee, A. S., 6574
 Lee, C., 2780
 Lee, C-S., 6586
 Lee, D. C., 5238
 Lee, G-H., 3257
 Lee, J., 3289
 Lee, J. H., 5118
 Lee, K-H., 1755
 Lee, L. W., 5238
 Lee, M., 2307
 Lee, M-J., 1509
 Lee, M. L., 850, 907
 Lee, M-S., 2902
 Lee, S-J., 3096
 Lee, S. M., 619
 Lee, S. W., 5587
 Lee, W-H., 6381
 Lee, Y-L., 601
 Lees, A. W., 556
 Lefebvre, J-L., 5384
 LeFever, A. V., 5596
 Legendre, A., 1680
 Lehman, J. M., 1334
 Lehman, T. A., 4090
 Lehmann, J. M., 4804
 Lehutan, M., 4378
 Leinonen, J., 222
 Leith, J. T., 4111, 5139
 Leitzel, K., 4149
 Leland, P., 3011
 Lemerle, J., 33
 Lemire, J. M., 2611, 4656
 Lenaerts, A., 2469
 Leonard, A. S., 2127

* For title of article and coauthors, see listing in Contents of Volume 51 beginning on page i at the end of this index issue.

AUTHOR INDEX TO VOLUME 51*

Leonard, J. E., 1689, 3183
 Leone, A., 445, 2490
 Leong, S. P. L., 422
 Leopold, W. R., III, 4581
 Lerman, M. I., 1071
 Less, J. R., 265
 Letessier, E. M., 3891
 Leteurtre, F., 5770
 Leveque, D., 2073
 Lévesque, C., 3131
 Levi, S., 3497
 Levin, B., 4495
 Levitz, M., 1092
 Levitzki, A., 4430
 Levo, Y., 5602
 Levy, A. T., 439
 Levy, B. K., 6558
 Levy, F., 6580
 Levy, M., 6230
 Lewis, A. D., 4463, 5181
 Ley, R. D., 6539
 Leyland-Jones, B. R., 587, 1803
 Leyton, J., 907
 Lhoste, J.-M., 5770
 Li, B.-Y., 4012
 Li, C., 130
 Li, F. P., 1544, 6094
 Li, J., 3826
 Li, J. J., 1922, 3626
 Li, L., 245, 2531
 Li, W., 1509
 Liang, C.-M., 6668
 Liao, D. C., 5539
 Liaw, Y.-F., 5621
 Libby, P. R., 3715
 Licciardello, J., 3669
 Licht, T., 5417
 Lichtner, R. B., 5943
 Lidereau, R., 2490
 Liebert, M., 2395
 Liehr, J. G., 3882
 Lien, E. A., 4837
 Liliemark, J., 5570
 Lilley, E. R., 3906
 Lim, S., 6185
 Lin, C. C., 1460
 Lin, C.-J., 4724
 Lin, C.-W., 1109, 2710
 Lin, J.-L., 4450
 Lin, J. T., 789
 Lin-Chao, S., 601
 Lindahl, T., 3384
 Lindstrom, M. J., 2642, 5298, 5649
 Linehan, W. M., 1071, 2490
 Ling, L.-Q., 3353
 Linker, C. A., 4141
 Linnoila, R. I., 1708, 6142
 Liotta, L. A., 439, 2490, 5054s
 Lipford, G. B., 1326, 2296
 Lipkin, M., 1917, 3069
 Lipman, J. M., 1823
 Lippard, S. J., 1866
 Lippert, M. J., 6001
 Lippman, M. E., 3590, 4978
 Lipton, A., 4149
 Liscia, D. S., 6194
 Litwin, S., 3080, 3171, 3910, 6059
 Liu, A. Y., 4107
 Liu, C., 3826
 Liu, D., 5315
 Liu, J., 4613
 Liu, L. F., 3534, 6039
 Liu, R. H., 3925
 Liu, S.-d., 780
 Liu, S.-Y., 1755
 Liu, T. P., 5461
 Liu, Y., 3037
 Liu, Y.-L., 5501
 Llor, X., 4305
 LoBuglio, A. F., 4155, 5461
 Lock, R. B., 6543
 Locniskar, M., 907
 Loeb, L. A., 3075
 Loeschler, E. L., 2268
 Loeffler, C. M., 2127
 LoGerfo, P., 1571
 Lointier, P., 1227
 Lombardi, L., 400
 Lombardo, F. A., 1803
 London, T., 6176
 London, W. T., 4971
 Long, B. H., 5275
 Longenecker, B. M., 1170
 Longo, D. L., 2127
 Lönnroth, C., 415
 Loor, F., 4226
 Lopalco, L., 5960
 Lopes, A. D., 5744
 Lopez Hänninen, E., 6312
 Lorenson, M. Y., 6568
 Lorico, A., 5275
 Losa, G. A., 1443
 Lotan, R., 387
 Loullis, C. C., 181
 Lovelace, E. T., 3781
 Lowy, D. R., 712
 Lu, B., 897
 Lu, H., 4192
 Lu, S.-N., 5621
 Lu, X., 6230
 Lubejko, B., 5781
 Lubin, J. H., 2885
 Lucas, R., 2469
 Lucchini, V., 6358
 Lucier, G. W., 1391
 Luckert, P. H., 3610
 Ludlum, D. B., 499, 1568
 Ludwig, H., 6250
 Luk, G. D., 657, 3416
 Lun, Z., 2307
 Luna, M. C., 4243
 Lundholm, K., 415, 880
 Lupu, R., 3590
 Luqmani, Y., 5851
 Luscher, P., 974
 Lüttichens, S., 5722
 Lyall, R. M., 4430
 Lynch, H. T., 657
 Lynch, J. H., 3304
 Lyons, R. M., 5253
 Lysz, T., 813

M

Ma, B.-L., 1509
 Mabry, M., 581, 5514
 Macatee, T. L., 3471
 Maccubbin, A. E., 886
 Machemer, T., 4378
 Maciak, R. S., 2965
 Mackensen, A., 2524
 MacLeod, M. C., 4859
 Madewell, B. R., 233
 Madreperla, S. A., 6381
 Maeda, S., 820, 5736
 Maeda, Y., 2842
 Maehara, Y., 3503
 Maeura, Y., 6224
 Magee, P. N., 6409
 Magnani, J. L., 3781
 Magnani, P., 5960
 Magrath, I., 6550
 Maguire, H. C., Jr., 2731
 Maher, V. M., 1221, 2587
 Mahmoud, S., 1798
 Maida, B., 1499
 Maier, L. A., 5361
 Maimonis, P., 3838
 Mainolfi, E., 5003
 Maione, T. E., 2077
 Mairhofer, H., 27
 Majumdar, A. P. N., 3416
 Makabe, T., 22
 Maki, P. A., 4170
 Makuch, R. W., 1708
 Malcovati, M., 5960
 Malik, R., 5626
 Malik, S. T. A., 6643
 Malins, D. C., 5430
 Malkin, D., 3958
 Malkinson, A. M., 450, 6699
 Malone, J. M., 2848
 Maloney, T., 1973
 Malviya, V. K., 2848
 Maly, K., 807, 5821
 Mammarella, S., 5378
 Mamone, J. Y., 6558
 Man, M. S., 4486
 Mancina, A., 3721
 Mancini, W. R., 870
 Mandahl, N., 954
 Mandard, A. M., 4102
 Mandecki, W., 1876
 Mandelli, F., 964
 Manderino, G., 4149
 Manenti, G., 6299
 Mangioni, C., 6358
 Mani, C., 6052
 Manly, K. F., 4701
 Mann, A. M., 3471
 Mann, D., 3793
 Mann, K. L., 4859
 Mann, S. C., 3677, 5903
 Mannervik, B., 94
 Mantovani, A., 2239
 Marcell, T., 3274
 Marder, V. J., 3261
 Mareel, M., 2229
 Margison, G. P., 619, 2092

Margolin, J. F., 5626
 Margolis, B., 3818
 Mariani-Costantini, R., 5378
 Marinelli, A., 1694
 Markert-Hahn, C., 27
 Markovic, S. N., 1124
 Marks, A., 1619
 Marks, J. R., 2605, 2979
 Maronpot, R. R., 1148, 1391
 Marsh, J. P., 167
 Marshall, C. J., 3497
 Marshall, J. F., 4768
 Marshall, M. V., 6268
 Martelli, A., 2273
 Marti, G. E., 6263
 Martikainen, P., 4693
 Martin, G. R., 2670
 Martin, G. R., 3624
 Martin, T. J., 3059
 Martin, W., 5348
 Martinez, A., 3088
 Martin-Padura, I., 2239
 Maruyama, H., 6224
 Marx, S. J., 1154
 Masazza, G., 6358
 Maseki, N., 5937
 Mason, K. L., 6338
 Mason, S. N., 1202
 Masters, J. R. W., 6592
 Mastrangelo, M. J., 2731
 Mastro, A. M., 82
 Masuda, Y.-i., 4639
 Masui, H., 6170
 Masui, S., 282
 Masui, T., 1766, 1778, 3471
 Matanoski, G. M., 5786
 Matherly, L. H., 3420
 Mathew, R., 5495
 Matijasevic, Z., 1568
 Maton, P. N., 1154
 Matsubara, K., 89, 3544
 Matsuda, A., 2319
 Matsuda, H., 5339
 Matsuda, T., 3237
 Matsuda, Y., 4080
 Matsui, Y., 2223
 Matsuki, S., 3710
 Matsukura, N., 365
 Matsumoto, K., 3006, 4323, 5573
 Matsunaga, T., 3148
 Matsushita, Y., 387
 Matsutani, E., 6180
 Matsuzaki, G., 5261
 Matta, K. L., 1257
 Mattamal, M. B., 514
 Mattern, M. R., 5813
 Mattes, M. J., 1619, 3102
 Matthews, D. C., 5921
 Maxwell, F., 4299
 Maxwell, I. H., 4299
 Maxwell, M., 1345
 May, R. D., 4052, 5045s
 May, W. S., 682, 5514
 Mayall, B. H., 3807
 Maybaum, J., 3900
 Mayes, J., 4729
 Mayo, J. G., 2837

* For title of article and coauthors, see listing in Contents of Volume 51 beginning on page i at the end of this index issue.

AUTHOR INDEX TO VOLUME 51*

Mazumder, A., 2015, 2694
 Mazurkiewicz, J. E., 1334
 Mazzei, M., 2273
 McBlain, W. A., 556
 McBride, M., 1117
 McBride, O. W., 2490
 McCabe, F. L., 5813
 McCague, R., 5851
 McCann, A. H., 3296
 McCarthy, D., 1651
 McClelland, R. A., 239
 McCormick, J. J., 1221, 2587
 McCoy, D. W., 181
 McCoy, J. P., Jr., 5212
 McCue, P., 4937
 McCully, C. J., 5107
 McDaniel, T., 5766
 McDonnell, D. P., 105
 McGee, D. L., 422
 McGrath, P., 1973
 McGuire, J. J., 3874
 McGuire, W. L., 105, 944
 McGuire, W. P., 5781
 McKean, J. D., 2430
 McKeever, P. E., 3900
 McKenna, W. G., 5113
 McKenzie, I. F. C., 310, 2908, 5826
 McKenzie, S., 5361
 McLaughlin, J. K., 3044, 3068
 McLaughlin, K., 2242
 McLaughlin, S. J., 3534
 McLellan, E. A., 5270
 McMole, T. L., 3274, 4636
 McMahon, N., 2242
 McNally, N. J., 33
 Meadows, A. T., 2885
 Mechtersheimer, G., 1300
 Mecklin, J.-P., 4135
 Medendorp, S. V., 836
 Medline, A., 5270
 Medof, M. E., 2521
 Meeker, D. P., 857
 Meese, E., 5449
 Meggouh, F., 1227
 Mehta, R. G., 481
 Meissner, L. F., 3323
 Meister, L., 6529
 Melani, C., 2897
 Melchiori, A., 2670
 Melner, M. H., 3663
 Meloni, G., 964
 Meltzer, S. J., 5766
 Memoli, V. A., 349, 354, 2451
 Mendelsohn, J., 2780
 Mendiguren-Rodriguez, A., 3669
 Mendonca, M. S., 4455
 Menzel, T., 6312
 Menzies, S. W., 2773
 Mérard, Y., 3131
 Meredith, R. F., 5461
 Merino, M. J., 1071
 Merle, S., 5384
 Merlini, G. T., 5417
 Merlo, G. R., 6194
 Merluzzi, V. J., 5003
 Mertens, F., 954

Mertens, O., 954
 Metcalf, D., 2494
 Metcalf, R. A., 4090, 4102
 Mewes, K., 3427
 Meyer, C., 73
 Meyer, R. A., 841
 Meyer, S. A., 130
 Meyers, F. J., 1632
 Mezzanica, D., 5716
 Miano, L., 2456
 Michelson, S., 4111, 5139
 Mickisch, G. H., 5417
 Mielke, B., 2430
 Mihić, E., 745
 Miike, R., 5266
 Miki, H., 5308
 Miki, T., 4909
 Mikkelson, R. B., 359
 Milas, L., 3639
 Milenic, D. E., 2889, 6363
 Millar, R., 2577
 Miller, B. E., 4378
 Miller, G., 6006
 Miller, G. K., 2694
 Miller, L. S., 2889
 Miller, R. K., 3311
 Miller, T., 2051
 Milligan, A. J., 1680
 Millikin, D., 5449
 Milner, A. M., 3857
 Milner, J. A., 4613
 Milovanovic, S., 5980
 Mimnaugh, E. G., 769
 Min, K. W., 2762
 Minke, J. M. H. M., 4028
 Minna, J. D., 4999, 6194
 Miozzo, M., 400
 Miquel, R., 4436
 Mirski, S. E. L., 3345
 Mirvish, S. S., 1059
 Mischak, R. P., 4575
 Misdror, W., 4028
 Mistry, J. S., 227
 Mitchell, D. L., 3965
 Mitchell, G. B., 5487
 Mitchell, J. B., 1606, 4287, 5065s, 6622
 Mitchell, M. S., 1418
 Mitchell, R. B., 3367
 Mitchell, S., 6660
 Mitchen, J., 6629
 Mitelman, F., 954
 Mitra, S., 3339
 Mitsudomi, T., 4999, 6194
 Mitsugi, K., 5392
 Mitsunobu, M., 89
 Miura, I., 3267
 Miura, Y., 341, 4649
 Mivechi, N. F., 6608
 Miwa, A., 341
 Miyaji, H., 6677
 Miyake, A., 5322, 5951, 5956
 Miyamoto, H., 6346
 Miyuchi, M., 4038
 Miyazaki, I., 1034
 Miyazaki, I., 2683
 Miyazaki, K., 5261

Miyoshi, I., 1574, 3327
 Mizoguchi, A., 2223
 Mizukami, Y., 2683
 Modal, R. V., 4090
 Moesker, O., 644, 1959
 Mohamed, A., 2173
 Mohler, J. L., 6580
 Mohtai, H., 4639
 Moir, D. T., 6712
 Mokyr, M. B., 4516
 Moldawer, L. L., 415
 Moldenhauer, G., 729
 Moley, J. F., 1596
 Molina, C. A., 4624
 Möller, P., 729, 1300
 Momburg, F., 729
 Momose, H., 5487
 Monahan, J. J., 4575
 Moncada, S., 6073
 Moncharmont, B., 3843
 Monfils, B. A., 1308
 Monks, A., 2515
 Monson, J. M., 6608
 Montaldo, P. G., 4342
 Monteil, H., 2073
 Montes, G., 190
 Montesano, R., 3825, 4102
 Montgomery, B. T., 3748
 Montgomery, J. A., 2386
 Montz, F. J., 2124
 Moody, T. W., 1798
 Moon, R. C., 481
 Moore, A. S., 233
 Moore, G. E., 2735
 Moore, M., 6318
 Moradi, M., 4012
 Morales, F. R., 5107
 Moran, R. G., 4618
 Moreau, J.-P., 1798
 Morel, P. A., 4355
 Moreno, C., 6372
 Morgan, A. C., Jr., 676
 Mori, M., 6656
 Mori, T., 3544
 Moriguchi, S., 5339
 Morimoto, M., 110, 4888
 Morishige, K.-i., 5322, 5951, 5956
 Morita, K., 4271
 Morita, M., 1472
 Morita, M., 5339
 Morita, R., 820, 4707, 5118, 5817
 Moriwaki, S.-i., 2425, 6219
 Moroi, M., 341
 Moroson, B. A., 2291
 Morotomi, M., 1571
 Morris, D. L., 3198
 Morris, J., 3595
 Morrissey, D. T., 2063
 Morrone, S., 2456
 Morse, M. A., 1846
 Mortarini, R., 2239
 Morton, D. L., 2002, 5687
 Moschel, R. C., 3367
 Moser, A. H., 2803
 Moses, H. L., 5253
 Mossman, B. T., 167
 Mottolese, M., 3001

Motz, J., 4810
 Mpezo, M., 549
 Mtiro, H., 1952
 Mueller, B. M., 144, 2193
 Mueller, G. C., 3626, 4114
 Muindi, J. F., 3096
 Mujoo, K., 2768
 Mukhopadhyay, T., 1744, 4495
 Mulcahy, R. T., 1099, 1783
 Mulder, K. M., 2256
 Mulder, N. H., 116
 Mulé, J. J., 2649
 Mullen, M. D., 1689
 Mulshine, J. L., 688, 1798, 4999
 Mulvin, D. W., 3274
 Mummert, C., 3367
 Mundy, G. R., 2438, 4430
 Munemitsu, S., 1811
 Munn, D. H., 1117
 Münz, I., 27
 Murad, T., 2403
 Murakami, Y., 3356, 5520
 Muramatsu, S., 5532
 Muraro, R., 5378
 Murasko, D. M., 1124
 Murata, J., 22
 Murata, M., 1494
 Murnane, M. J., 1137
 Murphy, G., 2731, 4937
 Murphy, L. C., 2051, 5476
 Murphy, L. J., 2051, 5476
 Murphy, M. J., Jr., 2158
 Murphy, R. F., 6079
 Murray, J. L., 521
 Murray, J. L., 2768
 Murthy, S., 836, 4199
 Muscat, J. E., 2263, 3067
 Muschel, R. J., 5113
 Mutai, M., 318, 824
 Muzio, G., 4603

N

Naaktgeboren, J. M., 1177
 Naber, S. P., 1345
 Nabi, I. R., 2699, 3507
 Nackerdien, Z., 5837
 Nadler, L. M., 6236
 Nagahara, A., 2940
 Nagai, M., 3886
 Nagarajan, L., 2486
 Nagasaki, K., 6656
 Nagashunmugam, T., 5626
 Nagataki, S., 5667
 Naiki, M., 1242
 Nair, U. J., 3018
 Naito, K., 6180
 Naito, M., 157
 Naito, M., 1398
 Naito, Z., 365
 Nakachi, K., 5177
 Nakada, H., 331
 Nakagama, H., 89
 Nakai, T., 990
 Nakaizumi, A., 3493
 Nakamura, M., 1940
 Nakamura, S., 215
 Nakamura, S., 2670

* For title of article and coauthors, see listing in Contents of Volume 51 beginning on page i at the end of this index issue.

AUTHOR INDEX TO VOLUME 51*

Nakamura, T., 434
 Nakamura, T., 1726
 Nakamura, Y., 89, 820, 2926,
 4707, 5118, 5794, 5817
 Nakano, H., 2922
 Nakano, H., 5800
 Nakano, S., 5392
 Nakata, K., 215
 Nakata, K., 5667
 Nakatani, K., 5800
 Nakuchi, H., 99, 341
 Nakayama, E., 2223
 Nakayama, H., 2926
 Nakayama, T., 3639
 Nakazawa, S., 1574, 2917, 6708
 Namiki, M., 3550
 Nanus, D. M., 4815, 5881
 Napolitano, L. A., 6686
 Napolitano, T., 2456
 Narang, P. K., 6079
 Narasimhan, J., 6199
 Narita, T., 4909
 Nash, S., 6059
 Natale, A., 3102
 Natale, R. B., 1065
 Natali, P. G., 652, 3001
 Nathan, C. F., 794
 Natsumeda, Y., 3886
 Nau, M. M., 6194
 Nawata, H., 2842
 Nawaz, Z., 105
 Neal, D., 422
 Neblock, D. S., 5716
 Neefe, J. R., 3159
 Neeman, M., 3831, 4072
 Negri, E., 629
 Nelkin, B. D., 5514
 Nelson, G., 6163
 Nelson, J. M., 4581
 Neri, A., 1318
 Nesnow, S., 5198, 6163
 Neumann, C., 3243
 Neuringer, L. J., 3289
 Neville-Golden, J., 1345
 Newcomb, E. W., 5129, 6202
 Newell, A. D., 233
 Newkirk, C., 5766
 Newman, E. M., 4871
 Newman, J., 4052
 Newman, R. A., 3559, 3568
 Newmark, H., 3069
 Newton, C., 5851
 Nezelof, C., 5712
 Ng, S.-F., 2340
 Ng, T. C., 1384
 Ngo, L., 6686
 Nhamburo, P. T., 4636
 Nicklas, J. A., 6001
 Nicolson, G. L., 245, 387, 5943
 Nie, G., 3143
 Niedzwiecki, D., 789
 Nielsen, L. L., 3762
 Niethammer, D., 6066
 Niho, Y., 5392
 Nii, A., 5526
 Niloff, J., 4476
 Nimec, Z., 3874
 Ning, S., 5910
 Ning, S. M., 1509
 Ninomiya, I., 1034
 Nisar, M., 1613, 6019
 Nishigori, C., 2425, 6219
 Nishii, K., 5573
 Nishikawa, A., 5888
 Nishikawa, K., 6084
 Nishikawa, M., 4271
 Nishino, H., 1448
 Nishino, N., 2842
 Nishino, T., 3522
 Nishio, K., 3237
 Nishioka, M., 4080
 Nishioka, Y., 5526
 Nishiura, T., 5888
 Nishiya, S., 5859
 Nishizawa, Y., 3006, 5573
 Nishizawa, Y., 5573
 Nistér, M., 1553
 Nitta, T., 5565
 Niwa, K., 5987
 Nobori, T., 3193
 Noël, A. C., 405, 3624
 Noelke, B., 205
 Noguchi, A., 4310
 Noguchi, A., 4310
 Noguchi, M., 2683
 Noguchi, P. D., 6263
 Noguchi, Y., 863
 Nojiri, H., 1940
 Nolan, C., 1817
 Nomoto, K., 1494, 5261
 Nomura, K., 3056
 Nomura, K., 3257
 Nonomura, N., 3006
 Nordenskjöld, M., 1684
 Normanno, N., 1294, 4898
 Normolle, D. P., 3900
 North, S. M., 5943
 Northoff, H., 3862
 Norton, J. A., 1154, 2302
 Norton, K., 3391
 Norton, K. A., 372
 Norton, T. R., 504
 Nourigat, C., 5921
 Novick, S., 5410
 Nowell, P. C., 2494, 6712
 Nudelman, E. D., 2199
 Nugent, P., 1465
 Numata, M., 195
 Numata, Y., 331
 Nusgens, B. V., 405
 Nuzzo, F., 3965
 Nyce, J. W., 6563

O

Obara, T., 3550
 Obata, Y., 2416
 Oberberg, D., 43, 3862
 Oberhammer, F., 2478
 Oberhuber, H., 807
 Oberley, L. W., 1922
 Oberley, T. D., 1922, 6629
 O'Brien, S., 935
 O'Brien, W. J., 6199
 Ochoa, A. C., 2127
 Ochoa, J. B., 2127
 O'Connor, B. M., 3874
 O'Connor, P. M., 6550
 O'Connor, T., 1708
 Odom-Maryon, T., 5704
 Odoroff, C. L., 3311
 O'Dwyer, J. L., 2041
 O'Dwyer, P. J., 2041, 3080, 3171,
 6059
 Oesch, F., 1659
 Ogata, M., 3011
 Ogawa, K., 318, 5655
 Ogawa, K., 949
 Ogawa, M., 3544, 5694
 Ogawa, O., 949, 5817
 Ogawa, T., 4038
 Ogolla, F., 549
 Ogura, K., 1701
 Ogura, R., 3555
 Ogura, T., 5526
 Ohannesian, D. W., 387
 O'Hara, C., 4476
 Ohe, Y., 1472
 Ohgaki, H., 6202
 Oh-hara, T., 921
 Ohishi, T., 2199
 Ohkubo, C., 1561
 Ohmori, T., 3237
 Ohnishi, Y., 3919
 Ohno, H., 110
 Ohno, M., 5888
 Ohno, S., 2994, 3559, 3568
 Ohnuma, N., 3148
 Ohnuma, T., 55
 Ohoyama, S., 1034
 Ohryohji, F., 2842
 Ohshima, K., 4639, 5392
 Ohtsuki, Y., 3327
 Ohyashiki, J. H., 2917
 Ohyashiki, K., 2917
 Oie, H. K., 4999
 Oikawa, A., 195
 Oishi, K., 3445
 Oishi, M., 764, 5398
 Ojwang, J. O., 2268
 Oka, T., 3522
 Oka, Y., 4450
 Okabe, M., 110, 4888
 Okabe-Kado, J., 2582, 4535, 4649
 Okada, F., 6677
 Okada, M., 341
 Okamoto, A., 5171, 5632
 Okamoto, E., 89
 Okamura, K., 3550
 Okamura, T., 1766, 1778, 3471
 Okano, T., 3229
 Okarma, T., 3891
 Okoshi, H., 6019
 Okubo, T., 6084
 Okuda, S., 785, 6150
 Okuhara, M., 4038
 Okumoto, T., 2319
 Okumura, K., 5565
 Okun, E., 2002, 5687
 Okunieff, P., 3289
 Okuzumi, J., 1448
 Old, L. J., 2706
 Oldfield, E. H., 1154
 Oldiviela, R., 4948
 O'Leary, D. F., 1412
 Oleinick, N. L., 5993
 Oliva, M. R., 2463
 Olive, M., 1452
 Olive, P. L., 4671
 Olsnes, S., 916
 Olsson, J. M., 3774
 O'Malley, B. W., 105
 O'Neill, J. P., 6001, 6603
 Ong, G. L., 1619
 Ono, M., 3951
 Onoda, M., 3304
 Onozuka, Y., 4535
 Onyekwere, O., 4279, 6304
 Opacic, D., 6691
 Oppenheim, J. J., 1158
 Oratz, R., 3643
 Ordentlich, P., 1996
 O'Regan, M., 3296
 Orino, E., 5526
 O'Riordan, M. A., 1564
 Orloff, M., 2009
 Oron, M., 1499
 Orosz, C. G., 2373
 Ortaldo, J. R., 6596
 Osada, Y., 903
 Osann, K. E., 4893
 Osborne, M. P., 2706
 Osborne, R. J., 6194
 Oshimura, M., 4415
 Osman, S., 2107
 Ossowski, L., 274
 Österdahl, B.-G., 4388
 Ostrowski, L. E., 3339
 Ota, D. M., 387, 5728
 Otake, N., 157
 Otto, A. M., 3217
 Otto, H. F., 729
 Oval, J., 150
 Overgaard, J., 707
 Owen, R. D., 6010
 Owen-Schaub, L. B., 3669
 Ownby, H., 1973
 Oyama, F., 4876
 Oyasu, R., 3323, 5487
 Ozdemirli, M., 1137
 Ozols, R. F., 6059
 Ozturk, M., 6185

P

Paans, A. M. J., 1930
 Pacelli, R., 4898
 Pacula-Cox, C. M., 1247
 Padarathsingh, M., 5440
 Padavic-Shaller, K., 3910
 Padfield, G., 4111, 5139
 Padma, R., 2486
 Paffenbarger, R. S., Jr., 2307
 Paganelli, G., 5960
 Paganin, C., 301
 Pai, L. H., 2808
 Paik, S., 3590
 Palacin, A., 4436
 Palefsky, J. M., 1014
 Palmer, L. A., 5224

* For title of article and coauthors, see listing in Contents of Volume 51 beginning on page i at the end of this index issue.

AUTHOR INDEX TO VOLUME 51*

Palmer, P., 2456
 Palmieri, G., 1294
 Palomba, M. L., 4931
 Pan, C.-J., 2058
 Pan, S.-s., 4360
 Pandolfi, F., 3164
 Panella, T. J., 3037
 Pantazis, P., 6636
 Pantel, K., 4712
 Panting, L., 6059
 Paolini, M., 301
 Papageorge, A. G., 712
 Pardee, A. B., 3602
 Pariza, M. W., 2940, 6118
 Park, S. S., 1059
 Parker, H. M., 4613
 Parker, W. B., 2386
 Parkin, J. L., 3990
 Parkinson, D. R., 3669
 Parl, F. F., 3405
 Parmiani, G., 2239, 2897
 Parpia, B., 3826
 Parry, R. L., 2101
 Partridge, E. E., 568
 Parysek, L. M., 6338
 Parzefall, W., 1143, 2478
 Pasero, L., 1270
 Pass, H. I., 4287, 4999
 Pastan, I., 174, 2808, 2831, 3011,
 3781, 5417
 Pastorino, U., 400
 Pate, D. W., 4588
 Patel, R., 4871
 Paterson, A. H. G., 556
 Paterson, M. C., 556
 Pathak, M. A., 4964
 Pathak, S., 6292
 Patrick, K. E., 850, 5642
 Patterson, D., 3821
 Paugh, D., 2395
 Pauley, R., 3331
 Pauli, B. U., 394
 Pauli, G., 2073
 Pauly, K., 1659
 Paumgartner, G., 205
 Pauwels, R. P. E., 644
 Pawluczyk, I. Z. A., 1990
 Payan, M. J., 5679
 Pearson, P. L., 1020
 Peccatori, F., 6358
 Pegg, A. E., 3367
 Pegoraro, L., 1741
 Pegram, C. N., 3339
 Pelhate, S., 1537
 Pellicer, A., 1627, 5129, 5410
 Pelling, J. C., 1851, 3471
 Peltonen, P., 4135
 Pence, J. C., 2979
 Pepe, S., 4898, 6263
 Perantoni, A. O., 5308
 Perchellet, E. M., 2820
 Perchellet, J.-P., 2820
 Perentesis, P., 688
 Perez, A., 4828
 Pérez-Ayala, M., 2463
 Peri, L., 4102
 Perkett, E. A., 5253
 Perrotti, D., 5491
 Persons, P. E., 4430
 Persson, B., 954
 Peruchó, M., 5129
 Peter, R., 3171
 Peter, S., 1811
 Peters, R. H., 2536
 Petersen, B. H., 2286
 Peterson, J. A., 4994
 Peterson, L. A., 5495, 5557
 Peto, R., 6415, 6452, 6470
 Petrakis, N. L., 5266
 Petruk, K. C., 2430
 Petterson, R. F., 2164
 Pettinato, A., 2456
 Pettit, G. R., 682
 Pfahl, M., 4804
 Pfeffer, L. M., 5881
 Pfeifer, A. M. A., 3793
 Pfeiffer, A., 205
 Pflug, B., 3304
 Phan, S.-C., 1571
 Phelps, R. M., 1708, 4999
 Phillips, P. D., 5997
 Philpot, R. M., 4636
 Piccoli, M., 2456
 Piée, A., 1659
 Pienta, K. J., 6514
 Pieper, R. O., 1581
 Pierotti, M. A., 400
 Pierré, A., 2312
 Pietersz, G. A., 310
 Pike, J. W., 239
 Pike, M. C., 3617
 Pilotti, S., 400
 Pinsky, C., 688
 Pisani, P., 2572
 Pittman, A., 2515
 Pizzorno, G., 2291
 Plasse, T. F., 2021
 Platsoucas, C. D., 4257
 Platt, J. L., 2127
 Pleasure, D., 6529
 Plowman, J., 1979, 2837
 Plunkett, M. L., 1339
 Plunkett, W., 4141, 6110
 Podczaski, E., 4149
 Poddighe, P. J., 1959
 Podhasky, P., 969
 Poggensee, L., 2403
 Poliwoda, H., 6312
 Pollard, M., 3610
 Pomfret, E. A., 16
 Pommier, Y., 6280
 Pon, R. T., 3996
 Ponchio, L., 536
 Ponchon, T., 3024
 Ponta, H., 5292
 Pontes, E., 4199
 Pontes, J. E., 2521
 Ponti, M., 199
 Ponton, A., 2138
 Pontzer, C. H., 5304
 Ponzon, M., 4342
 Poole, S., 4768
 Poonamallee, U. R., 1632
 Popanda, O., 3456
 Popone, E. A., 4588
 Poplack, D. G., 3171, 5467, 6079
 Popper, T. L., 1339
 Porcu, P., 1741, 5997
 Porter, C. W., 3715
 Porter, L., 445
 Potischman, N., 4785
 Potmesil, M., 3052, 6039
 Pott, C., 3243
 Poupon, M.-F., 2312
 Pour, P. M., 4757
 Pourreau, C. N., 2456
 Pourtier-Manzanedo, A., 4226
 Powell, G. J., 3059
 Pradel, P., 3633
 Prakash, N. J., 62
 Prat, F., 3024
 Prat, M., 3001
 Prehn, R. T., 2
 Prendergast, R. A., 6381
 Presti, J. C., Jr., 1544, 5405
 Preston-Martin, S., 3044
 Pretlow, T. G., 1564, 3814
 Pretlow, T. P., 1564, 3814
 Price, J. E., 2029
 Price, M. R., 1990
 Priest, D. G., 789
 Primavera, M. C., 3261
 Primus, F. J., 181, 926
 Prince, C. W., 2144
 Prior, T. I., 174
 Prochownik, E. V., 2118
 Proctor, R. A., 1651
 Proksch, B., 3427
 Prusoff, W. H., 1586
 Puett, D., 3663
 Puisieux, A., 6185
 Pulciani, S., 744
 Puri, R. K., 3011, 6209
 Pyke, C., 4067
 Pylkkänen, L., 4135

Q

Qi, W., 4250
 Qiu, H., 255
 Qiu, S., 3748
 Queen, C., 465
 Quistorff, B., 5160
 Quoix, E., 2073

R

Raatgever, J. W., 3445
 Rabbits, P. H., 5205
 Rabinovitch, P. S., 5482
 Radacic, M. M., 707
 Rademaker, A., 5487
 Radin, A. I., 4279
 Radomski, M. W., 6073
 Radulovic, S., 5980, 6006
 Radzikowsky, C., 916
 Raffel, C., 639
 Ragaz, J., 1904
 Rago, R., 6629
 Ralfkjaer, E., 4067, 5976
 Ramaekers, F. C. S., 644, 1959
 Ramakrishnan, S., 4012

Ramel, S., 5482
 Ramp, G., 3843
 Ran, M., 612
 Rannikko, S., 222
 Rao, C. V., 4528
 Rao, G., 5837
 Rao, J. Y., 2762
 Rao, P. H., 1544
 Rappaport, W. D., 422
 Rashed, S., 4257
 Raskind, W. H., 5482, 5766
 Rasoi, V., 4316
 Rastetter, J., 43
 Ratain, M. J., 1749
 Ratko, T. A., 481
 Ratliff, T. L., 3726
 Ratner, L., 4295
 Ravdin, P. M., 6268
 Ravikumar, T. S., 6323
 Ravindranath, Y., 4279
 Rawson, N. S. B., 1817
 Raychaudhuri, S., 3183, 6045
 Rayman, P., 4199
 Raymond, V. W., 5238
 Raz, A., 2173, 2699, 3507
 Raz, T., 2173
 Reaman, G. H., 4871
 Reardon, D. T., 4219
 Recchione, C., 2572
 Reddel, R. R., 365
 Reddy, B. S., 487, 2826, 4528
 Reddy, K. B., 3451
 Redmond, S. M. S., 2092
 Redondo, M., 2463, 4948
 Redpath, J. L., 4455
 Reed, J. C., 6529
 Rees, R. C., 2490
 Reeve, J. G., 5205
 Reeve, V. E., 2773
 Reeves, W. C., 4785
 Refsum, H., 828
 Reggio, H., 5679
 Reibnegger, G., 6250
 Reid, B. J., 5482, 5766
 Reiners, J. J., Jr., 4859
 Reinlib, L., 359
 Reisfeld, R. A., 144, 2193, 4986
 Reiss, K., 5997
 Reiss, M., 5315, 6254
 Remick, S. C., 1651
 Resau, J. H., 365, 657, 3267, 5219,
 5766
 Rettig, W. J., 336
 Reuter, V. E., 1544, 5405
 Revoltella, R. P., 301
 Reynier, M., 1270
 Reynolds, J. C., 688
 Reynolds, S. H., 1148
 Reznikoff, C. A., 3232
 Rheinwald, J. G., 3972
 Rhim, J. S., 5967, 6521
 Rhinehardt-Clark, A., 468
 Riboni, R., 3965
 Ricciardi, R. P., 3334
 Rice, J. M., 5308
 Richards, J., 4328
 Richards, M. A., 1210

* For title of article and coauthors, see listing in Contents of Volume 51 beginning on page i at the end of this index issue.

AUTHOR INDEX TO VOLUME 51*

Richardson, J., 5876
 Richie, E. R., 737
 Richter, K. H., 6010
 Ricketts, D., 1817
 Riecken, E.-O., 5342
 Rieder, C. L., 4942
 Riethmüller, G., 4712
 Rigotti, J., 487, 4528
 Rijksen, G., 5507
 Riley, C. M., 3096
 Rimoldi, D., 324, 5929
 Rinderle, S. J., 657
 Ringborg, U., 94
 Ringer, D. P., 504
 Rio, M-C., 624
 Riordan, J. M., 886
 Riou, G., 33
 Risio, M., 1917
 Ristimäki, A., 2107
 Ritche, J. K., 3726
 Ritter, M. A., 261
 Ritts, R. E., Jr., 4155
 Rivoltini, L., 2897
 Rizkalla, L. R., 5760
 Rizkalla, W. M., 5760
 Rizzino, A., 5898
 Ro, J. Y., 4495
 Robb, D., 2690
 Robbiani, L., 2273
 Robbins, P. F., 3657
 Roberts, D. W., 4371
 Roberts, J., 2577
 Roberts, J. J., 123
 Robertson, N., 3183
 Robertson, N. E., 1339
 Robins, R. A., 1990, 5425
 Robinson, W. R., 4045
 Robison, L. L., 2885
 Roche, J. K., 4423
 Rodeck, U., 2205
 Rodriguez, G., 6268
 Roebuck, B. D., 5501
 Roelofs, M. E. M., 2628
 Roffler, S. R., 4001
 Rofstad, E. K., 4609
 Rogers, A. E., 5501
 Rogers, K., 5461
 Roh, H. D., 6695
 Rokukawa, C., 1701
 Romanini, A., 789
 Romano, J. W., 4090
 Romerdahl, C. A., 2193
 Romero, M., 4436
 Romero, P. A., 3136
 Rommel, M. E., 3733
 Ronan, S. G., 2025
 Roninson, I. B., 2720
 Roop, D. R., 4402
 Roos, G., 4570
 Rorke, E. A., 3982
 Rosado, M., 4955
 Rosati, R., 4234
 Rose, L. M., 2386
 Roselli, M., 181
 Rosen, E. M., 5315
 Rosen, N., 4978
 Rosen, P. P., 2706

Rosenberg, J., 3183
 Rosenberg, S. A., 2649, 5074s
 Rosenblum, M. G., 2768
 Rosenblum, N. G., 2041
 Rosenfeld, M. G., 6170
 Rosengard, A. M., 445
 Rosenstrauss, M. J., 5744
 Roses, D. F., 3643
 Ross, D. D., 4360
 Ross, J., 6163
 Ross, R. K., 3617
 Rossetti, C., 5960
 Rossignol, G., 2009, 3946
 Rossini, F. P., 1917
 Rosti, V., 536
 Roth, B. J., 4395
 Roth, J. A., 1744, 3669, 4495
 Roth, J. S., 1803
 Rothlein, R., 5003
 Rotter, V., 5232
 Rotundo, R. F., 3874
 Rousseau, S. M., 349, 354
 Rowinsky, E. K., 5781
 Rowley, J. D., 2494
 Rowlinson-Busza, G., 3251
 Roy, D., 3882
 Roy, G., 5245
 Roy-Burman, P., 5440
 Rozengurt, E., 1674, 3621
 Rozental, J. M., 1099
 Rubin, E., 6636
 Rubin, H., 1003, 2751
 Rubinstein, L. R., 1247
 Rucker, N., 6574
 Ruco, L., 2456
 Rudolf, A. R., 233
 Rudy, W., 5292
 Ruggeri, B., 4097, 6615
 Ruiz-Cabello, F., 2463, 4948
 Rummel, S. A., 737
 Runkle, R. L., Jr., 1339
 Ruscetti, F. W., 1158
 Russell, E., 1708
 Russo, A., 4287, 6622
 Russo-Payne, H., 274
 Rustum, Y. M., 3476
 Rutherford, A. V., 3781
 Ryall, G. K., 1817, 4685
 Ryle, C. M., 4402

S

Sacchi, A., 5491
 Sachs, L., 2494
 Saclarides, T. J., 2720
 Saez, S., 1227
 Safa, A. R., 521
 Saga, T., 990
 Sagman, U., 718
 Saidi, J., 4388
 Saito, N., 1472, 3237
 Saiki, I., 22
 Sai-Maurel, C., 1537
 Saito, H., 5118
 Saito, M., 1940
 Saito, M., 2917, 6708
 Saito, S., 5817
 Saitoh, O., 2854

Saitoh, Y., 110
 Sakahara, H., 990
 Sakakura, T., 3257
 Sakamoto, G., 5794
 Sakamoto, N., 903
 Sakurai, K., 4476
 Sakata, S., 2319
 Sakata, T., 1778
 Sakayama, Y., 5951
 Sakura, Y., 6180
 Sakurai, M., 4355
 Sakurai, M., 5937
 Sakurai, Y., 3229
 Salahuddin, S. Z., 2670
 Saleh, M. N., 4155, 5461
 Salemark, L., 954
 Salgaller, M., 3657
 Salomon, D. S., 1051
 Salwen, H. R., 6338
 Sameshima, Y., 5171, 5632
 Samid, D., 324
 Samuels, B. L., 521, 1749
 Samuni, A., 6622
 Sanchez, A. B., 6539
 Sanchez, C. A., 5482
 Sanchez-Madrid, F., 2239
 Sandberg, A. A., 422
 Sandgren, M., 2021
 Sandoval, L., 3602
 Sandvig, K., 916
 Sangaiah, R., 6163
 Sano, T., 2926
 Santella, R. M., 1720, 6230
 Santen, R. J., 1760
 Santoni, A., 2456
 Sarang, M., 6280, 6550
 Sari, H., 1270
 Sarid, J., 3595
 Saris, W. H. M., 6138
 Sarre, O., 1339
 Sartorius, S., 5781
 Sartwell, A. D., 2058
 Sasada, R., 6180
 Sasaki, T., 1034, 2319
 Sasaki, Y., 1472
 Sasazuki, T., 2874
 Satake-Ishikawa, R., 3710
 Sato, A., 110
 Sato, B., 3006, 4323, 5573
 Sato, J. K., 4871
 Sato, K., 2511
 Sato, K., 4187
 Sato, K., 5565
 Sato, M., 3177
 Sato, M., 4909
 Sato, N., 4250
 Sato, S., 921
 Sato, S., 6677
 Sato, T., 5118, 5794
 Sato, W., 2420
 Sato, Y., 341
 Satoh, M., 6677
 Satyavaroop, P. G., 5661
 Saunders, D. E., 2848
 Sausville, E., 688
 Sauter, G., 205
 Savina, P. M., 3906

Savoldelli, R., 629
 Sawicka, J. M., 624
 Saylor, R. L., III, 4721
 Scala, S., 4898
 Scalliet, P. G., 4523
 Scanlon, K. L., 4618
 Scardino, P. T., 4084
 Scarpell, D. G., 2403
 Schachter, H., 1257
 Schackert, G., 2029
 Schaffel, S., 3838
 Schalken, J. A., 606, 2329
 Schaller, G., 4712
 Schally, A. V., 4757, 5980, 6006
 Schanbacher, C. F., 1109
 Scheeter, R. L., 1434
 Schellhammer, P. F., 1326
 Scheppach, W., 4238
 Scher, C. D., 5626
 Scher, H. I., 3096
 Schildberg, F. W., 205
 Schilder, R., 6059
 Schiller, J. H., 1651
 Schimke, R. T., 2949
 Schinkel, A. H., 2628
 Schipper, J. H., 6328
 Schlag, P., 729
 Schlenger, K., 3316, 6098
 Schlesinger, J., 3818
 Schlessinger, J., 150, 2438
 Schlimok, G., 4712
 Schlom, J., 181, 926, 2889, 3657,
 4155, 5461, 5694, 6363
 Schlossman, D. M., 468
 Schmidberger, H., 1883, 1891
 Schmidt, C. A., 4213
 Schmidt, H., 2690
 Schmittgen, T. D., 3849
 Schmitz, B., 3702
 Schneck, D. W., 2286
 Schneekloth, C., 6312
 Schneider, S., 4131
 Schneider, W. P., 465
 Schnipper, L. E., 510
 Schoenberg, J. B., 3044
 Schoenhaus, M., 4131
 Schoenig, G. P., 1766
 Schoenlein, P., 1638
 Schold, S. C., Jr., 3906
 Scholz, M., 4410
 Schönenberger, H., 3217
 Schor, P. L., 3831
 Schornagel, J. H., 5507
 Schrappe, M., 4986
 Schraufstätter, I. U., 6066
 Schreiner, C., 1738
 Schrode, R., 1659
 Schroeder, F. H., 3445
 Schroit, A. J., 3062
 Schuchter, L. M., 682
 Schuller, H. M., 2009
 Schulte-Hermann, R., 666, 1143,
 1789, 2478
 Schulz, K-D., 5722
 Schulz, S., 6563
 Schulz, V., 4665
 Schuster, J. M., 4164

* For title of article and coauthors, see listing in Contents of Volume 51 beginning on page i at the end of this index issue.

AUTHOR INDEX TO VOLUME 51*

Schut, H. A. J., 5636
 Schuurings, E., 4028
 Schwartz, G. K., 55
 Schwartz, J. L., 3857
 Schwartz, L. H., 624
 Schwartz, M. S., 3595
 Schweighardt, S. A., 6650
 Scimeca, J. A., 6118
 Scott, J., 6273
 Scott, O. C. A., 757, 5434
 Scott, W. L., 5774
 Scrable, H., 5100
 Scudiero, D., 2515
 Sebag, M., 6521
 Sebti, S. M., 227
 Seccamani, E., 5960
 Secher, D., 5461
 Seckinger, D., 1190
 Secreto, G., 2572
 Secrist, J. A., III, 2386
 Sedivy, R., 1143
 Sedwick, W. D., 3930
 See, W. A., 1373, 1378
 Segal, D. M., 5716
 Sehagl, S. N., 5614
 Sehested, M., 5093
 Sehgal, S. N., 1499
 Seidel, A., 1659
 Seidler, L., 4328
 Seidman, I., 4917
 Seigner, C., 5679
 Sekely, L. I., 3626
 Sekido, Y., 2416
 Sekiguchi, K., 4876
 Sekiya, S., 2655
 Sekiya, T., 3356, 5520, 5800
 Sela, B-A., 4853
 Selhub, J., 16
 Seliger, B., 2164
 Selkirk, S., 4768
 Sell, S., 1278
 Selliah, N., 1973
 Sem, D. S., 6199
 Sendo, F., 3212
 Seon, B. K., 2985
 Sergi, J. S., 836, 4199
 Serre, C-M., 2621
 Serve, H., 3862
 Sethi, T., 1674, 3621
 Seto, M., 1574, 6708
 Setter, E., 5315
 Sevick, E. M., 265, 1352, 2727
 Seyama, T., 381
 Seyedzadr, M., 3108
 Seyoum, E., 16
 Sgagias, M. K., 1488
 Shabon, U., 3334
 Shaddix, S. C., 2386
 Shah, G. N., 6243
 Shaper, J. H., 581
 Sharfman, W. J., 836, 4199
 Sharief, Y., 6580
 Shariff, S. Y., 5487
 Sharkey, R. M., 1619, 3102, 4192
 Sharma, R. C., 2949
 Sharpe, R. J., 2077
 Shaulsky, G., 5232
 Shawver, L. K., 4575
 Shea, C. R., 4410
 Shea, W. K., 2786
 Sheahan, K., 1137
 Sheehan, C., 4486
 Sheehan, J., 5342
 Sheibani, N., 5967
 Shellard, S. A., 4557
 Sherman, M. L., 4565
 Sherry, B., 415
 Sherwood, E. R., 2780
 Sherwood, M., 288
 Shi, Y., 2690
 Shibamoto, Y., 5134
 Shibasaki, Y., 4450
 Shibata, M-A., 2548
 Shibata, Y., 3550
 Shibazaki, C., 3229
 Shibuya, M. L., 573
 Shida, T., 5392
 Shih, A. G., 288
 Shih, L. B., 4192
 Shiku, H., 2223
 Shima, M., 5667
 Shima, T. B., 2670
 Shimada, H., 2151, 5100
 Shimada, S., 5694
 Shimada, T., 5284
 Shimada, Y., 2113
 Shimbara, N., 6677
 Shimizu, N., 1504
 Shimizu, Y., 6153
 Shimokata, K., 2416
 Shimosato, Y., 2199, 4876
 Shimoyama, Y., 2185
 Shin, K. C., 1065
 Shingleton, H. M., 568
 Shinkai, T., 1472
 Shinozawa, Y., 1504
 Shiojiri, N., 2611
 Shioota, S., 3339
 Shirai, T., 1264, 5655
 Shirai, Y., 4080
 Shirakawa, S., 4271
 Shirasawa, H., 3148
 Shirasawa, S., 2874
 Shiu, R. P. C., 3996
 Shively, J. E., 1876, 3802
 Shochat, D., 5461
 Shoemaker, R. H., 2837
 Shoff, S. M., 37
 Shortnacy, A. T., 2386
 Shoyab, M., 2813
 Shu, Z., 2307
 Shuja, S., 1137
 Shulman, H., 5921
 Shulok, J. R., 1109, 2710
 Siccaldi, A. G., 5960
 Siddik, Z. H., 2994, 3559, 3568
 Siddiki, B., 1026
 Sidransky, D., 4721, 6304
 Siegall, C. B., 2831
 Siegel, F. L., 1783
 Siegel, S. E., 2885
 Siegfried, J. M., 3267
 Siessmann, K. L., 4516
 Sigdestad, C. P., 4125
 Sijens, P. E., 1384
 Sikic, B. I., 5181
 Sikorska, M., 528, 1078
 Silber, J. H., 1426
 Silber, R., 3052
 Siler, K., 2889
 Sillerud, L. O., 3831, 4072
 Silletti, S., 3507
 Silver, H. K. B., 1904
 Simar, L., 405
 Simard, J., 2797, 4336, 5165
 Simizu, B., 3148
 Simmons, A. M., 1708
 Simon, D., 6176
 Simons, J. W., 4135
 Simons, J. W. I. M., 1177
 Simpkins, H., 1334
 Simpson, J. F., 926
 Simpson, S., 3590
 Simpson, W., 2451
 Sinclair, W. K., 2740
 Singer, S., 3289
 Singh, S. B., 3482
 Singh, U. C., 3482
 Singhal, A., 1406
 Sinha, B. K., 521, 769
 Siracký, J., 4701
 Sirica, A. E., 5752
 Sirotnak, F. M., 1412
 Sistonen, P., 4135
 Sitrin, M. D., 4305, 5608
 Siu, H., 5045s
 Sjoerdsma, A., 62
 Skalak, T. C., 265
 Skehan, P., 2515
 Skierski, J., 4828
 Skipper, P. L., 5219
 Skipper, P. W., 4371
 Sklar, M. D., 2118
 Skolnik, E. Y., 3818
 Skopek, T. R., 5188
 Skornick, Y., 5602
 Skup, D., 2138
 Sladek, N. E., 4170
 Slaga, T. J., 907
 Slagle, B. L., 49
 Slamon, D. J., 556, 1811
 Slater, J. B., 6650
 Slobos, R., 958
 Sledge, G. W., Jr., 4395
 Sleemi, A., 5370
 Slevin, M. L., 1210
 Sloan, S. R., 1627
 Sluyser, M., 1930, 3843
 Smets, S., 3585
 Smeets, A. W. G. B., 644
 Smeets, D., 1959
 Smidt, M., 4295
 Smith, C., 1078
 Smith, C. A., 5843
 Smith, H. S., 4978
 Smith, J., 4685
 Smith, K. L., 6089
 Smith, R. A., 1766, 4388
 Smith, R. D., 542
 Smith, T. J., 1509, 4798
 Smyth, M. J., 310

Sneed, D., 3183
 Snover, D. C., 1891
 Snow, G. B., 211
 Snoy, P., 6363
 Snyder, K. A., 4423
 Snyder, S. W., 4360
 Sobel, M. E., 439, 5672
 Sobelman, D., 1499
 Sodum, R. S., 137
 Soeters, P. B., 6138
 Sohn, O. S., 2826
 Soi, A., 5760
 Solheim, E., 4837
 Sone, S., 5526
 Song, Y., 1910
 Sonobe, H., 3327
 Soper, J. T., 468
 Sørensen, B. S., 5093
 Soued, M., 2803
 Souhami, R. L., 1210
 Southby, J., 3059
 Sozzi, G., 400
 Spada, A. P., 4430
 Spadafora, C. G., 3814
 Spagnesi, M. T., 3721
 Spang-Thomsen, M., 5160
 Spector, A. A., 6025
 Speicher, D., 4853
 Spengler, B. A., 1596
 Speyer, J. L., 3643
 Spiegel, A. M., 1154
 Spillare, E., 3793
 Spindel, E. R., 5205
 Spiro, R. C., 4986
 Sporn, L. A., 3261
 Sporn, M. B., 3610, 6215
 Sprancmanis, L. A., 3096
 Spreafico, F., 199
 Sprengel, J., 3702
 Spriggs, D., 4476
 Sredni, B., 1499, 5614
 Sreekanthaiah, C., 422
 Srikanthan, V., 324
 Stackpole, C. W., 2444
 Stadler, M., 2478
 Stähelin, H. F., 5
 Stahl, J. A., 445
 Staley, J., 1798
 Stamato, T. D., 2636, 4463
 Stamp, G., 6643
 Stanbridge, E. J., 4455
 Stanescu, G., 2521
 Stanley, J., 4199
 Stanners, C. P., 3526
 Stark, H.-J., 4402
 Starkey, J., 3183, 6045
 Starling, J. J., 2965
 Staroselsky, A. H., 6292
 Stash, E. B., 6254
 Stastny, J. J., 3768
 Staudter, M., 1300
 St. Clair, D. K., 939, 4539
 St. Clair, W. H., 4539
 Stearns, M. E., 5866
 Steeg, P. S., 445, 2490
 Steele, G., Jr., 6323
 Stefanik, D. F., 5760

* For title of article and coauthors, see listing in Contents of Volume 51 beginning on page i at the end of this index issue.

AUTHOR INDEX TO VOLUME 51*

Stefanini, M., 3965
 Stehlin, J. S., Jr., 3052
 Stein, H., 3243, 5342
 Stein, L. S., 696
 Steinberg, S. M., 4999
 Steinbrecher, T., 1659
 Steinhauser, G., 43, 3862
 Steinman, L., 5565
 Stellato, T. A., 1564
 Stenman, G., 1553
 Stenman, U.-H., 222, 2107
 Stensky, V., 2690
 Stephens, I., 2242
 Stephens, L. C., 2994, 3559, 3568
 Stern, A. C., 116
 Stern, E. W., 1866
 Stetler-Stevenson, W. G., 439,
 5054s, 6190
 Stetson, P. L., 870, 3900
 Stettner, S. L., 737
 Stevenson, G. T., 2353
 Stickney, D. R., 1515, 6650
 Stillwell, R. G., 3059
 Stillwell, W. G., 190
 St. John, M., 1778
 Stobie, K. M., 1196
 Stoica, G., 696
 Stolwijk, J. A. M., 4028
 Stolze, B., 5342
 Stone, A., 4114
 Stone, B. J., 2885
 Stone, K. D., 4279
 Stone, M., 4052
 Stoner, G. D., 365, 2063
 Stoppacciaro, A., 2456
 Stoppelli, M. P., 1294
 Storer, B. E., 1651, 3323
 Storkson, J., 2940
 Stoter, G., 2324
 Stoudemire, J. B., 4219
 Stovall, M., 2885
 Strebel, F. R., 2994, 3559, 3568
 Streeten, E., 1154
 Streffer, C., 5134
 Streilein, J. W., 3153
 Stretch, J. R., 5976
 Strife, A., 4828
 Strohmeyer, T., 1811
 Strong, L. C., 6385
 Stroud, M. R., 2199
 Stuart, R. K., 2536
 Stuart, S. G., 2593
 Studzinski, G. P., 3451
 Stump, D. C., 354
 Su, S. L., 336
 Suciu, D., 573
 Suda, T., 341, 4649
 Sudati, F., 5960
 Suffys, P., 2469
 Sugarbaker, E. V., 1190
 Sugimachi, K., 1494, 2842, 3503,
 3522, 4008, 5261, 5339
 Sugimoto, Y., 99
 Sugimoto, Y., 921
 Sugimoto, Y., 3237
 Sugimura, T., 3056, 5171, 5800
 Sugio, K., 4008
 Sugiyama, M., 3555
 Sugiyama, T., 949
 Sullivan, D. M., 6543
 Sullivan, L. M., 6603
 Sumegi, J., 4481
 Sumitani, S., 4323
 Sumiyoshi, H., 2069
 Sumiyoshi, Y., 4639
 Sundquist, W. I., 1866
 Sutherland, B. M., 288
 Sutherland, D. R., 1257
 Sutton, R. C., 387
 Suyama, M., 2416
 Suzuki, H., 1286
 Suzuki, T., 2420
 Suzumori, K., 2133
 Suzushima, H., 6084
 Svennerholm, L., 4643
 Swann, P. F., 5843
 Sweeney, B., 2879
 Swenberg, J. A., 3512, 5188, 6409
 Swinnen, L. J., 1984
 Sykes, D., 2786
 Symbola, M., 4423
 Szallaszi, Z., 5355
 Szatrowski, T. P., 794
 Szepeshazi, K., 5980
 Szoke, B., 5980
 Szolgay-Daniel, E., 1039

T

Tabata, Y., 5532
 Tabibzadeh, S. S., 5661
 Taetle, R., 150, 1689
 Taggart, R. T., 1154
 Taghizadeh, K., 5219
 Tagliabue, E., 400
 Tagliaferri, P., 1294, 4898
 Tahara, E., 2926
 Tainsky, M., 1744
 Taioli, E., 3067
 Takahashi, E.-i., 4707
 Takahashi, H., 3148
 Takahashi, M., 1934
 Takahashi, N., 2366
 Takahashi, N., 4250
 Takahashi, R., 5736
 Takahashi, S., 824, 1264, 5655
 Takahashi, T., 1448, 4310
 Takahashi, T., 1574, 2416, 6708
 Takahashi, T., 1934
 Takahashi, T., 6194
 Takai, S., 3544
 Takai, Y., 2223
 Takaishi, K., 4080
 Takakuwa, K., 1934
 Takamizawa, H., 2655
 Takano, H., 3951
 Takashima, T., 4250
 Takashina, K.-i., 4310
 Takatori, T., 5859
 Takatsuki, K., 6084
 Takayama, K., 2223
 Takayama, Y., 5859
 Takebe, H., 2425, 3177, 6219
 Takehara, N., 3327
 Takeshita, M., 4639
 Takeshita, S., 2842
 Takeuchi, T., 2985
 Takeyama, H., 4476
 Taki, T., 1701
 Tamano, S., 1264, 2548
 Tamaoki, T., 1460
 Tamaoki, T., 4888
 Tamargo, R. J., 672
 Tamaya, T., 5987
 Tamura, G., 3056
 Tamura, S., 4080
 Tamura, S., 6622
 Tamura, T., 1472
 Tanabe, K., 4903, 4909
 Tanabe, M., 3148
 Tanaka, A., 3006
 Tanaka, H., 3710
 Tanaka, J., 1086
 Tanaka, K., 1934
 Tanaka, K., 2842
 Tanaka, K., 6677
 Tanaka, M., 1034
 Tanaka, N. G., 903
 Tanaka, S., 6529
 Tanaka, T., 6224
 Tandon, A. K., 105
 Taniguchi, H., 785, 2863, 3493,
 6150
 Taniguchi, N., 5888
 Taniya, T., 2683
 Tanizawa, O., 5308, 5322, 5951,
 5956
 Tannenbaum, S. R., 190, 4371,
 5219
 Tanoue, K., 1286
 Taper, H., 666
 Taraboletti, G., 5672
 Tartaglia, L., 3171
 Tarui, S., 4080
 Tashiro, K., 6019
 Tatematsu, M., 318
 Tatsumi-Miyajima, J., 3177
 Tatsuma, M., 785, 2863, 3493, 6150
 Taub, R. N., 4955
 Tauchi, T., 2917
 Tay, L., 2902
 Taylor, G. A., 5579
 Taylor, J., 1798
 Taylor, P. T., 4423
 Taylor, S. R., 4084
 Taylor-Papadimitriou, J., 2908
 Teh, C.-Z., 2307
 Teicher, B. A., 510, 780, 1086
 Teillaud, J.-L., 612
 Teitel, C. H., 4371
 Templeton, N. S., 6190
 ten Dijke, P., 4828
 Teng, B.-B., 4305
 Teng, C. T., 3037
 Tennant, B. C., 3925
 Tenorio, F., 4785
 Terachi, T., 2521
 Terada, M., 3056, 5171, 5632,
 5800
 Terada, N., 3006
 Teranishi, Y., 2223
 Terashima, Y., 5171, 5632

Terrier-Lacombe, M. J., 33
 Tesch, H., 3702
 Teshima, S.-i., 5632
 Testa, J. R., 3267, 4090
 Tew, K. D., 6059
 Thai, G., 4859
 Thakar, J. H., 6286
 Thangada, M., 775
 Thatcher, N., 619
 Thedrez, P., 1537
 Theilen, G. H., 233
 Theodorescu, D., 4486
 Theologides, A., 3990
 Thiebaut, F. B., 5903
 Thielmann, H. W., 3456
 Thomas, D. M., 3497
 Thomas, G. A., 639
 Thomas, G. E., 6558
 Thomas, P. E., 1509, 4798
 Thomas, T., 3938
 Thomas, T. J., 3938
 Thomason, A., 4149
 Thomassen, M. J., 857
 Thompson, E. A., 5544, 5551
 Thompson, E. W., 2670
 Thompson, H. J., 3411
 Thompson, S. M., 4492
 Thomsen, L. L., 77
 Thor, A. D., 624
 Thoresen, S. O., 1234
 Thorgeirsson, S. S., 5929
 Thorpe, P. E., 4052, 4768
 Thrower, D., 2212
 Thuraisamy, K., 4955
 Thurman, R. G., 2036, 4511
 Tilby, M. J., 123
 Till, M., 4052
 Tilley, R., 696
 Tindall, D. J., 3748
 Tinsley, P. W., 3080, 6059
 Tisdale, M. J., 6089
 Titani, K., 4876
 Tjaden, U. R., 1694
 Tobe, T., 2113
 Tobin, B. M. J., 3296
 Todd, R. F., III, 1065
 Tohda, H., 195
 Tokes, Z. A., 1318
 Tokino, T., 89
 Tokiwa, K., 1448
 Tokuchi, S., 2599
 Tokumo, K., 4528
 Tokunaga, A., 1934
 Tokunaga, K., 2842
 Tokura, S., 22
 Tölg, C., 5292
 Tomasoni, A., 6358
 Tomassetti, A., 6125
 Tomaszewski, J. E., 3733
 Tombes, M. B., 1099, 1105, 1651
 Tomita, J., 4149
 Tomita, N., 3544
 Tonin, P. N., 5100
 Tonini, G. P., 1733
 Toniolo, P., 2572
 Torigoe, T., 4250
 Torrisi, M. R., 1294

* For title of article and coauthors, see listing in Contents of Volume 51 beginning on page i at the end of this index issue.

AUTHOR INDEX TO VOLUME 51*

Tortora, G., 6263
 Tory, K., 1071
 Tos, A. G., 964
 Toshitani, K., 2874
 Tosti, S., 964
 Totis, A., 2572
 Totpal, K., 4266
 Townsend, A. J., 521, 587
 Townsend, C. M., Jr., 5253
 Toy, P., 4575
 Toyama, K., 2917
 Toyokuni, T., 4310
 Toyoshima, K., 990
 Traganos, F., 3682
 Travali, S., 5997
 Trent, J. M., 995, 2193, 5449
 Trentin, L., 3164
 Tribby, I., 4149
 Trinidad, A., 549
 Tritscher, A., 1391
 Troll, W., 4810
 Trono, D., 6615
 Trown, P. W., 4219
 Trowsdale, J., 5329
 Trump, B. F., 3793, 5219
 Trump, D. L., 1099, 1651
 Truong, K. N., 3198
 Trzeciak, M-C., 2621
 Tsai, S. J., 3331
 Tsao, M-S., 5238
 Tso, J. Y., 465
 Tsujimoto, Y., 1574
 Tsujino, T., 2926
 Tsujisaki, M., 2599
 Tsujitani, S., 3503
 Tsukada, Y., 820
 Tsukamoto, A., 2677
 Tsukuda, K., 4450
 Tsumuraya, M., 381
 Tsuneizumi, K., 5398
 Tsurumi, H., 4310
 Tsuruo, T., 110, 157, 921, 2420,
 2582, 4898, 5859
 Tsuta, Y., 22
 Tsutsumi, M., 820
 Tu, C-P. D., 587
 Tubaro, A., 2456
 Tubbs, R., 4199
 Tucker, M. A., 2885
 Tucker, R. W., 4206, 4693
 Tucker, S. L., 6292
 Tucker, T., 5045s, 5876
 Tuukkanen, K., 222
 Tung, E., 4001
 Tungekar, M., 261
 Tureaud, J., 3416
 Turley, H., 261
 Turnbull, L., 1817, 4685
 Tutsch, K. D., 1099, 1105
 Tuttle, S. W., 5539
 Tweardy, D. J., 4355
 Tyler, G., 5514
 Tyler, R. D., 3762
 Tyrolier, H. A., 3198
 Tyrrell, R. M., 974
 Tzeng, J-J., 2373

U

Überall, F., 807, 5821
 Ublacker, G. A., 1783
 Uchida, Y., 3951
 Uchiyama, C., 1418
 Ueda, M., 1504, 6656
 Ueda, R., 1574, 2416, 6708
 Ueda, T., 2319
 Uehara, H., 3493
 Ueland, P. M., 828, 4837
 Uemura, Y., 4271
 Uhr, J. W., 1482, 4052, 5045s,
 5876
 Ullrich, A., 1811
 Ullrich, S., 4090
 Unger, A., 6328
 Uno, K., 5532
 Unterman, T. G., 3030
 Uozumi, N., 5888
 Ura, H., 3550
 Urabe, K., 2874
 Urano, Y., 1460
 Urba, W. J., 2127
 Urbano-Ispizua, A., 3497
 Urrea, R., 4994
 Usui, N., 769
 Utsgi, T., 3062, 3741
 Utsumi, H., 573
 Utsumi, K. R., 4909, 6708
 Utsumi, T., 3362
 Uzvolgyi, E., 4481

V

Vaalburg, W., 1930
 Valenzuela, R., 836
 Valle, E. F., 2444
 Valleria, D. A., 1883, 1891
 Valli, C., 5378
 Van Bladel, S., 2469
 van den Berghe, R., 4028
 van den Brink, M. R. M., 4931
 Vanderheyden, J-L., 676
 van der Leun, J. C., 979
 van der Maas, P. J., 3445
 VanDerMeid, K. R., 1836
 van der Meide, P. H., 2329
 VanderPloeg, L. C., 3399
 Vander Velde, D., 3096
 van der Zee, A. G. J., 5915
 van de Velde, C. J. H., 1694
 van de Ven, W. J. M., 606
 Vande Woude, G. F., 5435
 van Dongen, G. A. M. S., 211
 van Emmerik, N., 5507
 Vangsted, A. J., 2879
 Vanhaesbroeck, B., 2229, 2469
 Van Lookeren Campagne, M. M.,
 1600, 6207
 van Moorselaar, R. J. A., 2329
 Van Oosterom, A. T., 4523
 van Osdol, W., 4776
 van Putten, W. L. J., 2324
 Van Roy, F., 2229, 2469
 Vanseymortier, L., 5384
 van Stratum, P., 2329
 van Vliet, M., 1020

Van Waes, C., 2395
 Vargas, E., 2098
 Vass, W. C., 712
 Vater, S. T., 492
 Vaughan, A. T. M., 3857
 Vaupel, P., 3289, 3316, 6098
 Vaysse, N., 3633
 Vecchio, G., 4234
 Veigl, M. L., 3930
 Veilleux, R., 4336, 5165
 Vellenga, E., 73, 116
 Vellucci, V. F., 6254
 Velotti, F., 2456
 Venesio, T., 6194
 Venkatesan, P., 676
 Verbeek, S., 958
 Verhagen, A., 1930
 Vermorken, J. B., 211
 Vert, M., 5384
 Vesselinovitch, S. D., 1952
 Viallet, J., 4999
 Viinikka, L. U., 4146
 Vilain, M-O., 5384
 Villa, E., 5960
 Villacorte, D. G., 4871
 Villalba Diaz, F., 1600, 6207
 Villar, H. V., 422
 Vindelov, L., 5093
 Virudachalam, S., 4565
 Vistica, D. T., 2515
 Vitetta, E. S., 1482, 4052, 5045s,
 5876
 Vives, J., 4436
 Vlodavsky, I., 2552
 Vocaturo, A., 3001
 Vocaturo, G., 3001
 Vogel, J., 6686
 Vogelstein, B., 4135, 4721, 5449,
 6304
 Voltz, R., 27
 von Eschenbach, A. C., 3741, 3753
 Von Hoff, D. D., 5107, 6268, 6273
 von Meyenfeldt, M. F., 6138
 von Wartburg, A., 5
 von Wronski, M. A., 3339
 Vooijs, G. P., 644
 Vos, J-M. H., 2867
 Voss, S. D., 1651
 Vredenburgh, J. J., 2451
 Vrionis, F. D., 4643
 Vuento, M., 2107
 Vydelingum, N. A., 863

W

Wachter, H., 6250
 Wada, H., 341
 Waddelow, T., 6273
 Wagata, T., 2113
 Wagner, J. G., 870, 3434
 Wagner, S. A., 2063
 Wagner, T., 3391
 Wagteveld, L., 73
 Wahl, G., 6273
 Wahl, R. L., 3434
 Waidelich, D., 3427
 Wainai, T., 1940
 Waites, G. T., 3030

Wakamiya, N., 4476
 Wakeling, A. E., 3867
 Walczak, J., 3080
 Waldman, F. M., 3807
 Waldren, C. A., 2636, 4463
 Walker, C., 2973, 4059, 4415
 Walker, G. J., 4367
 Walker, M. C., 6592
 Walker, P. R., 528, 1078
 Walker, S. B., 1045
 Walker, S. C., 1398
 Wall, F., 2335
 Wall, M. E., 6039
 Wallace, S. S., 2740
 Wallach, D., 5602
 Walsh, A. A., 288
 Waltz, T. A., 3193, 4986
 Walz, T. M., 3585
 Walzel, H., 916
 Wanek, P. M., 2335, 3802
 Wang, B., 2642, 5298, 5649
 Wang, C., 1196
 Wang, C. Y., 2902
 Wang, J., 3578
 Wang, J-L., 1553
 Wang, J-x., 6084
 Wang, J. Y. J., 3048
 Wang, L., 5275
 Wang, L-W., 1720
 Wang, M., 5587
 Wang, M., 5866
 Wang, M. G., 2490
 Wang, Q-c., 3353
 Wang, R. C. C., 5275
 Wang, S., 1059
 Wang, W., 4971
 Wang, Z., 3088
 Wang, Z-Q., 1755
 Wani, M. C., 6039
 Wankel, A., 422
 Ward, B. G., 5826
 Ward, F. T., 1803
 Ward, K. A., 3612
 Wargovich, M. J., 2069
 Warren, A. B., 2395
 Warren, L., 1996
 Warshawsky, D., 492
 Washington, G. C., 6263
 Wassermann, K., 5093, 6550
 Wasteson, A., 3585
 Watanabe, H., 2699, 3507
 Watanabe, J., 5177
 Watanabe, K., 1460
 Watanabe, M., 157, 921, 2199
 Watanabe, T., 764, 5398
 Watanabe, T., 4631
 Watanabe, Y., 990
 Watatani, K., 2438
 Watson, J. V., 799
 Watson, P. H., 3996
 Watts, P., 3910
 Waud, W. R., 1979
 Waxman, D. J., 2340
 Webb, C. D., 6543
 Weber, G., 3886
 Webster, M. K., 6031
 Wehner, J. M., 1766

* For title of article and coauthors, see listing in Contents of Volume 51 beginning on page i at the end of this index issue.

AUTHOR INDEX TO VOLUME 51*

Wei, H., 4443
 Wei, W-Z., 3331
 Weichselbaum, R. R., 521, 4565,
 6393
 Weidmann, E., 6153
 Weinberg, J. B., 1202
 Weiner, L. M., 3910
 Weinstein, I. B., 1571, 5080s, 6230
 Weinstein, J. N., 688, 4776, 4821
 Weinstein, R. S., 897, 2720
 Weintraub, J., 294
 Weir, B. K., 2430
 Weisburger, J. H., 6224
 Weiss, G. H., 1071
 Weiss, R. B., 1803
 Weissman, J., 3643
 Wells, A., 6170
 Wells, S. A., 1596
 Welsch, C. W., 3399
 Welsh, J. A., 4090, 4102
 Wennerberg, J., 954
 Wesenberg, F., 828
 Wesley, J. W., 1529
 Westergaard, O., 5093
 Westerhof, G. R., 5507
 Westermark, B., 1553, 5087
 Weston, A., 2490, 5219
 Westphal, H., 6506
 Wharton, J. T., 4257
 Wheaton, L., 1668
 Wheeler, C. A., 510
 Wheeler, R. H., 5461
 Wheeler, T. M., 4084
 White, A., 4131
 White, E. L., 2386
 White, J. C., 2559
 White, L. T., 1851
 White, R. W. V., 1632
 White, T., 2879
 Whiteley, L. O., 2973
 Whiteside, T. L., 3891, 6153
 Whitfield, J. F., 528, 1078
 Whitfield, L. R., 6318
 Whitin, J. C., 6568
 Whitlow, M., 6363
 Whitmore, G. F., 1860
 Whittemore, A. S., 2307
 Whitten, D. G., 1836
 Whittle, N., 181
 Whittum-Hudson, J. A., 6381
 Wick, M. M., 4964
 Wiebecke, B., 4712
 Wiedemann, H. P., 857
 Wiedlocha, A., 916
 Wiencke, J. K., 5266
 Wientjens, E., 958
 Wientjes, M. G., 3849, 4347, 5144
 Wiestler, O. D., 6202
 Wietharn, B. E., 4360
 Wikstrand, C. J., 4643
 Wilcosky, T. C., 3198
 Wild, C. P., 3825
 Wilder, P. J., 5898
 Wilding, G., 1099, 1105, 3590,
 6629
 Wilke, A. V., 1680
 Wilkes, B. M., 6103

Willecke, K., 5348
 Willemse, P. H. B., 116, 5915
 Willey, J. C., 5370
 Williams, B. R. G., 3958
 Williams, D. E., 2362
 Williams, G., 724
 Williams, G. M., 6224
 Williams, K., 6712
 Williams, L. E., 2335, 5704
 Williams, R. D., 1373, 1378
 Willigeroth, S., 3243
 Willingham, M. C., 3781
 Willumsen, B. M., 712
 Wilson, P., 239
 Wilson, R. E., 3281
 Wilson, V. L., 324
 Wiltrot, R. H., 6596
 Wingren, S., 3585
 Winn, D. M., 3044
 Wishnok, J. S., 190
 Witkowski, C., 5449
 Witt, P. L., 1651, 4155
 Witte, L., 2552
 Witz, I. P., 612
 Wlodek, D., 4671
 Wolf, H., 27
 Wolf, W., 5806
 Wolfe, H. J., 1345
 Wolff, A. J., 2124
 Wolfrom, D. M., 3399
 Wolkow, C. A., 4279
 Wolman, S. R., 2173
 Womer, R. B., 5626
 Wondergem, J., 2994, 3559
 Wong, B., 6318
 Wong, E. L., 1154
 Wong, F.-H., 1898
 Wong, G. Y., 2706
 Wong, J. Y. C., 2335, 3802
 Wong, M. S. J., 2051
 Wong, S., 6574
 Wong, Y.-K., 1109
 Woo, A., 1434
 Woo, T., 4279
 Wood, J. F., 6363
 Wood, R. D., 3384
 Workman, P., 799
 Worton, K. S., 985
 Wouters, E. F. M., 6138
 Wrathall, J., 3304
 Wrensch, M. R., 5266
 Wright, G. L., Jr., 1326, 2296
 Wu, S-Q., 3323
 Wu, Z. M., 5921
 Wunderlich, J. R., 5716
 Wu-Williams, A. H., 2307
 Wynder, E. L., 2263
 Wynn, D. M., 5728
 Wyrick, S. D., 969

X

Xianghui, W., 2307
 Xie, H., 2158, 3353

Xu, F.-J., 4012
 Xu, F. J., 5361
 Xu, H-J., 2735, 4481, 5736
 Xu, H-X., 190
 Xuan, H., 4192

Y

Yabkowitz, R., 1645, 3648
 Yabuuchi, I., 4080
 Yachi, A., 2599
 Yagi, T., 2425, 3177, 6219
 Yagihashi, A., 4250
 Yaginuma, Y., 6506
 Yague, J., 4436
 Yagura, M., 89
 Yamada, M., 824
 Yamada, M., 1726
 Yamada, Y., 5632, 5800
 Yamagami, K., 2319
 Yamaguchi, A., 1034
 Yamaguchi, E., 6346
 Yamaguchi, K., 4631, 6656
 Yamaguchi, T., 1448, 4310
 Yamakawa, K., 4707, 5817
 Yamamoto, T., 990
 Yamamoto, T., 5322
 Yamane, T., 1448
 Yamanishi, H., 3006
 Yamanoi, J., 1940
 Yamaoka, T., 5532
 Yamashina, I., 331
 Yamashita, Y., 2922
 Yamauchi, D. M., 5704
 Yamazaki, A., 5859
 Yamazaki, H., 1286
 Yamori, T., 5859
 Yan, P.-S., 372, 1026
 Yanagawa, Y., 2874
 Yanagihara, K., 381
 Yandell, D. W., 5736, 6393
 Yang, C. S., 1509, 4798
 Yang, G-Y., 1720
 Yang, H., 4790
 Yang, J.-m., 67
 Yang, S. C., 3669
 Yang, S. S., 753
 Yang, Z-h., 3353
 Yano, T., 1494, 5261
 Yao, X. J., 2307
 Yao, Z., 2158
 Yarosh, D., 4131
 Yarranton, G., 181
 Yasargil, M. G., 6202
 Yasmineh, W. G., 3990
 Yasuda, T., 3544
 Yasui, A., 195
 Yasukawa-Barnes, J., 2642, 5298,
 5649
 Yasumoto, K., 5261
 Yatvin, M. B., 37
 Yawata, Y., 341
 Yazaki, Y., 4450
 Ye, J. N., 2158
 Yean, T.-D., 2151
 Yee, D., 5107
 Yefenof, E., 2179
 Yeger, H., 3958

Z

Zacharski, L. R., 349, 354
 Zack, M., 3696
 Zafferani, M., 43
 Zahniser, D., 359
 Zaknun, J., 807
 Zalberg, J. R., 1750
 Zalutsky, M. R., 4164
 Zang, E., 4528, 6224
 Zava, D., 4470
 Zavala, D., 190
 Zbar, B., 1071
 Zee, B., 6318
 Zeisel, S. H., 16
 Zeligman, B. E., 3274
 Zeller, K.-P., 3427

* For title of article and coauthors, see listing in Contents of Volume 51 beginning on page i at the end of this index issue.

AUTHOR INDEX TO VOLUME 51*

Zeller, W. J., 2943	Zhang, Z-c., 3353	Zhuang, L., 77	Zöller, M., 5292
Zempel, G., 5348	Zhang, Z-G., 3476	Ziemiecki, A., 2092	Zorbas, M. A., 1452
Zenser, T. V., 514	Zheng, J., 4045	Zierold, K., 1039	Zou, M., 2690
Zeuthen, J., 2879	Zhong, Z., 4511	Zijlstra, J. G., 5915	Zu, H-X., 5636
Zhang, H. B., 5113	Zhou, Q., 1613, 6019	Zilberstein, A., 4430	Zugmaier, G., 3590
Zhang, R. D., 2029	Zhou, W., 294	Zimbrick, J. D., 2740	Zurawski, V. R., Jr., 468, 5716,
Zhang, S-z., 2047	Zhou, Y-Z., 49	Zimmerman, L. J., 6001	6125
Zhang, X-G., 3224	Zhou, Z-l., 6254	Zimniski, S. J., 3663	Zwelling, L. A., 4729, 6704
Zhang, Y-J., 1720	Zhu, D., 394	Zito, F., 5960	

* For title of article and coauthors, see listing in Contents of Volume 51 beginning on page i at the end of this index issue.

SUBJECT INDEX

Volume 51

A

A9 antigen aggressive human squamous carcinoma integrin $\alpha^6\beta_4$, 2395
Acetylaminofluorene -induced hepatocarcinogenesis hepatic mRNA translation, arylsulfotransferase IV, 504
2-Acetylaminofluorene chronic low-level exposure liver and bladder carcinogenesis, modulation by butylated hydroxytoluene, 6224
Acetylator polymorphism human colorectal carcinoma, 2098
***α-N*-Acetylgalactosamine-*O*-serine** -threonine antigen-mediated cellular response active immunotherapy, mice, 1406
***N*-Acetylglucosaminidase** secretion of lysosomal enzymes drug-sensitive and multiple drug-resistant cells, 1996
Acivicin -induced monocytoid differentiation myeloid leukemia cells, mRNA expression, 1202
Aclarubicin antagonistic effect on daunorubicin-induced cytotoxicity DNA integrity, small cell lung cancer cells, 5093
Acoustic cavitation cytotoxic effects HT-29 cells, rat peritoneal carcinomatosis, 3024
Acquired immunodeficiency syndrome non-Hodgkin's lymphoma and, 4743 -related Kaposi's sarcoma supernatants, endothelial cell chemotaxis and invasiveness, 2670
4'-(9-Acridinylamino)-3-methanesulfon-m-anisidine camptothecin or teniposide degradation of nuclear DNA, S phase of HL-60 cells, 1165
Activin A inhibition of P-glycoprotein expression multidrug-resistant K562 cells, 2582
AD198 modulation of effects by caffeine, 3682
Adeno-associated virus Rep78 inhibition of H-ras expression, 3373
Adenocarcinoma Barrett's 17p allelic deletions, p53 protein overexpression, 5482 breast protein core of mucin molecule, cytotoxic T-lymphocytes, 2908 carcinogenicity of diethylstilbestrol, 3311 c-erbB-2 proto-oncogene products immunoscintigraphy, 990 colonic Astler-Coller Dukes stage C, DNA aneuploidy, 2403 glycosyltransferase changes, differentiation, 3136

inhibition of platelet aggregation, metastasis, 921 inhibition of proliferation, c-myb antisense oligodeoxynucleotides, 2897 inhibition of protein isoprenylation, dehydroepiandrosterone, 6563 M_r 72,000 type IV collagenase, 439 colorectal differential nitric oxide synthesis, platelet aggregation, 6073 sex steroid and 1,25-dihydroxyvitamin D₃ receptors, 1227 endometrial patterns of differentiation, extracellular matrix, 5661 premalignant and malignant epithelial lesions, K-ras activation, 5308 regulation by progestins, transforming growth factor gene expression, 5476 esophageal frequent loss of heterozygosity, retinoblastoma locus, 5766 lung interleukin 4 receptor expression, 261 mammary coexpression of cytokeratins, myoepithelial and luminal cell lines, 5943 epiglycanin, immunosuppressive activity, 1170 glucocorticoid growth suppression response, dominant transacting factors, 6031 proteinase inhibitors, metastatic potential, 1318 mucinous monoclonal antibodies B1 and B3, 3781 prostatic hormonal regulation, prostate-specific antigen messenger RNA, 3748 mesenchyme-induced changes, neoplastic characteristics, 4924 metastatic potential and substrate dependence, cell motility, 6580 monoclonal antibody PD41, 1326 pulmonary primary and metastatic tumors, urokinase-type plasminogen activator, 3522 renal spontaneous lung metastasis, CGP 31362, 3741
Adenoma colonic altered protein kinase C activity, biopsies, 205 hepatocellular histochemical profile, diethylnitrosamine, 1952
Adenosine monophosphate, cyclic 8-Cl-cAMP and, 6206, 6207 8-Cl-cAMP and N⁶-benzyl-cAMP kinetics, HL-60 leukemia cells, 6263 -dependent protein kinase messenger RNA normal vs. neoplastic mouse lung epithelial cells, 6699 -responsive element binding proteins rat hepatoma, 528
Adenosine triphosphatase angiogenesis tumors growing in irradiated bed, 3289
Adenosine triphosphate transport multiplicity and energetics methotrexate efflux, L1210 cells, 1412
Adhesion tumor H-59 cells to hepatocytes M_r 64,000 plasma membrane glycoprotein, 3578
Adipose tissue lipoprotein lipase activity tumor-induced alterations, messenger RNA levels, 863
β-Adrenergic-blocking agents N-nitroso derivatives genotoxic effects, rat and human hepatocytes, 2273
Adriamycin combined with whole body hyperthermia tumor and normal tissues, 3559 -induced heart mitochondrial damage mechanism, electron spin resonance, 3555 interleukin 2 and augmentation of immunity, renal cell carcinoma, 6133 pharmacokinetics hyperthermia, normal tissue toxicity, 1680 protective effect of ICRF-187 normal tissue injury, whole body hyperthermia, 3568 reversal of resistance α-interferon, colon carcinoma, 4898 toxicity and antitumor activity micelle-forming polymeric anticancer drug, 3229
Aflatoxin association between hepatitis C virus antibodies hepatocellular carcinoma, Taiwan, 5621 nonassociation with primary liver cancer, 3825
Aflatoxin B₁ -DNA adducts immunofluorescence, woodchuck hepatocytes and rat liver, 1720 promotion of carcinogenesis indole-3-carbinol, 2362
Agar culture drug sensitivity, human tumor cell line growth, 1247
Agglutinin antibody-lectin enzyme immunoassay sugar chains, myeloma IgG, 5888
Aging hepatocarcinogenesis nafenopin, 666 role of oxidative stress, nafenopin, 1789 therapeutic radiation secondary thyroid neoplasms, 2885
Alcohol association between hepatitis C virus antibodies hepatocellular carcinoma, Taiwan, 5621
Aldehydes podophyllotoxin glucoside to etoposide

SUBJECT INDEX TO VOLUME 51

chemical and biological route, 5
Alkaline phosphatase
 germ cell
 transcriptional regulation, sodium butyrate and glycosylation, 2058
 intestinal
 tumorigenic potential, irradiated hybrids, 4455
 progestin regulation
 breast cancer cell line, 4470
Alkylation agents
 carmethylzole
 in vivo and *in vitro* evaluation, 4581
 cytotoxic effects
 O^6 -benzylguanine analogues, 3367
 modulation by etanidazole and fluosol-DA/carbogen
 fibrosarcoma, mammary carcinoma, 1086
 modulator of activity
 lonidamine, 780
ThioTEPA
 Phase I/pharmacokinetic reevaluation, 3171
 O^6 -Alkylguanine-DNA alkyltransferase
 activity in cell strains
 mouse skin tumors, UV irradiation, 2425
 constitutive drug resistance
 P-glycoprotein, human colorectal tumors, 2092
 depletion and regeneration
 dacarbazine and fotemustine, peripheral lymphocytes, 619
7-Alkylguanines
 release from modified DNA
 3-methyladenine DNA glycosylase II, 499
Alkyl-lysophospholipid
 glioblastoma cell invasion
 fetal rat brain tissue, 1713
ALL-1 locus
 cloning of, 6712
Allele
 acetylator genotype-dependent expression
 arylamine *N*-acetyltransferase, colon cytosol, 549
 activated *ras*
 human prostatic carcinoma, 1632
 allelotype study
 primary hepatocellular carcinoma, 89
 frequent losses and mutations
 p53 gene, human ovarian cancer, 5171
 hepatitis B virus integration event
 chromosome 17p near *p53* gene, hepatocellular carcinoma, 49
 loss on chromosome 17p and *p53* mutations
 human endometrial carcinoma, 5632
 marker
 chromosome 1, primary breast carcinoma, 1020
 normal and mutated *K-ras*
 differential expression, induced thymic lymphomas, 5129
 17p deletions and *p53* protein over-expression
 Barrett's adenocarcinoma, 5482
 somatic deletion
 nm23, human cancer, 2490
Aneletotype

human ovarian cancer, 5118
Alopecia
 1β -D-arabinofuranosylcytosine-induced interleukin 1 protection, 3329
Amaranthus caudatus
 lectin
 histochemical probe, proliferating colonic epithelial cells, 657
American Association for Cancer Research
 50th anniversary
 symposium, discoveries and opportunities in cancer research, 5013s
Amiloride
 glioma and colon carcinoma treatment, 1039
Amino acids
p53 gene analysis
 human uterine carcinoma cell lines, 6506
4-Aminobiphenyl
 adduct formation
 frequency of urination, 4371
 -hemoglobin adducts in lung cancer measurement of, cases and controls, 5219
Amino- α -carboline
 cytochrome P-450 activation of cigarette smoke, 5284
2-Amino-3-methylimidazo[4,5-f]quinoline
 formation and persistence of DNA adducts, 5636
2-Amino-1-methyl-6-phenylimidazo[4,5-b]-pyridine
 cytochrome P-450 activation of cigarette smoke, 5284
2-Amino-4-(5-nitro-2-furyl)thiazole
 mechanisms of resistance
 bladder cancer, 514
S-2-(3-Aminopropylamino)
 ethylphosphorothioic acid
 protection against late effects of radiation, 4125
9-Amino-20(S)-camptothecin
c-jun expression
 human myeloid leukemia cells, 6636
Ammonium
 ^{14}N nuclear magnetic resonance spectroscopy
 tumors, 3378
Amonafide
 Phase I clinical investigation
 refractory or relapsed acute leukemia, 935
Amsacrine
 -induced lesions in DNA
 modulation, novobiocin and 2,4-dinitrophenol, 573
 -resistant form of topoisomerase II
 point mutation, topoisomerase II gene, 4729
 topoisomerase II levels and chemosensitivity
 testis and bladder tumor cell lines, 6592
 α -Amylase
 isozymes
 expression, human thyroid tissues, 3544
Anal neoplasms
 anal intraepithelial neoplasia and human papillomavirus DNA, 1014
Anchorage independence
 role of postreplication repair transformation, human fibroblasts, 2960
Androgen
 antiestrogen EM-170 and
 estradiol-stimulated growth, breast tumors in athymic mice, 3131
 biphasic action
 antiproliferative effects, EM-139, 5165
 -dependent and -independent prostatic tumors
 γ -interferon, tumor necrosis factor- α , 2329
 -independent prostatic cancer
 autonomous growth, transforming growth factor- α , 2780
 programmed death, 4693
 -induced proliferation
 thyroid hormone, Shionogi carcinoma 115 mammary carcinoma cells, 4323
 -primed chemotherapy
 Dunning R3327 G model, prostatic cancer, 1760
 sensitivity
 new human breast cancer cell line, 5722
 serum and urinary
 risk of breast cancer, postmenopausal women, 2572
Androstenedione
 serum and urinary androgens
 risk of breast cancer, postmenopausal women, 2572
Anesthesia
 maternal and perinatal risk factors
 childhood leukemia, 3696
Angiogenesis
 blood flow and metabolism
 growth and ATPase kinetics, tumors growing in irradiated bed, 3289
 growth factor genes
 primary human astrocytomas, 1345
 inhibition by minocycline, 672
 suppression of solid tumor growth
 immunoneutralizing monoclonal antibody, basic fibroblast growth factor, 6180
 tumor growth and
 inhibition by CDPGYIGSR-NH₂, 903
 tumor-induced
 inhibitors, *in vivo* mouse assay, 1339
 sulfated chitin derivatives, 22
Anthracycines
 N -(5,5-diacetoxypentyl)doxorubicin
 DNA interstrand cross-linking, human leukemia cells, 6704
 immunoconjugates
 site-specific linkage, amino-dextrin intermediate carrier, 4192
Anthrapyrazole
 Phase I pharmacokinetic and pharmacodynamic study
 CI-937, 6317
Antibodies
 antipeptide
 production and characterization, O^6 -methylguanine-DNA methyltransferase, 3339
 bifunctional and enzyme-conjugated pharmacokinetic analysis, two-step approaches, 3119

SUBJECT INDEX TO VOLUME 51

galactose-conjugated
cancer therapy, 1619

α_1 -Antichymotrypsin
prostate-specific antigen and
sera of patients, prostatic cancer, 222

Antiestrogens
clinical potential, 3867
 5α -dihydrotestosterone and
inhibition of cell cycle kinetics, breast
cancer, 2797

EM-170 and androgen
estradiol-stimulated growth, breast tu-
mors in athymic mice, 3131

pyrrolidino-4-iodotamoxifen and 4-iodo-
tamoxifen
treatment of breast cancer, 5851

tamoxifen
P-450-mediated activation, proteins in
rat and human liver, 6052

Antifolates
compounds and natural folates
membrane transport, L1210 leukemia
cells, 5507

lipophilic
phenotype conferring selective resist-
ance, Chinese hamster ovary cells,
2949

Antineoplastic agents
survival after treatments
Chinese hamster cells, M_r 27,000 heat
shock protein, 5245

Antipain
-induced suppression of oncogene
expression
H-ras-transformed NIH3T3 cells,
4810

Antitumor activity
interleukin 1 α and
combination effect, syngeneic tumors
in mice, 215

taxotere, 4865

UCN-01
murine and human tumor models,
4888

Aphidicolin
fludarabine triphosphate
inhibition of primer RNA formation,
CCRF-CEM cells, 1829

Apolipoprotein D
stimulation of secretion by steroids
inhibition of cell proliferation, pros-
tate cancer cells, 4336

Apomucin
pancreatic
relationship, mammary and intestinal
apomucins, 1026

Apoptosis
DNA cross-links and cell cycle
nitrogen mustard sensitivity, Burkitt's
lymphoma, 6550

rapid cell death
induction by photodynamic therapy,
mouse lymphoma cells, 5993

topoisomerase II-reactive chemothera-
peutic drugs
thymocytes, 1078

1- β -D-Arabinofuranosylcytosine
1- β -D-arabinofuranosyluracil and
plasma and cerebrospinal pharmacoki-
netics, 4141

cis-diammine-1,1-cyclobutane dicarboxy-
latoplatinum(II)

inhibition of DNA interstrand cross-
link removal, 1984

-induced alopecia
interleukin 1 protection, 3329

internucleosomal DNA fragmentation
myeloid leukemia, 741

phosphorylation in human leukemia cells
regulation of deoxycytidine kinase, uridyne
nucleotides, 2559

potentiation of cytotoxicity to HL-60
cells

1,25-dihydroxyvitamin D₃, maturation
of DNA replication intermediates,
3451

1- β -D-Arabinofuranosylcytosine 5'-triphosphate
fludarabine triphosphate
inhibition of primer RNA formation,
CCRF-CEM cells, 1829

Arachidonate
release from epidermal cells
4 β - and 4 α -12-O-tetradecanoylphorbol-13-acetate, 850

Arachidonic acid
inhibitory effects of curcumin
lipoxygenase and cyclooxygenase,
mouse epidermis, 813

lipid peroxidation
rat AH-130 hepatoma cells, 4603

Arginine
dietary restriction
ornithine and polyamine metabolism,
two-stage epidermal carcinogenesis,
2932

Arylalkyl isothiocyanates
inhibition
4-(methylnitrosamino)-1-(3-pyridyl)-1-
butanone lung tumorigenesis, 1846

Arylamine N-acetyltransferase
acetylator genotype-dependent expres-
sion
colon cytosol, non-cancer and colorectal
cancer, 549

Arylsulfotransferase IV
modulation of hepatic messenger RNA
translation activity
acetylaminofluorene-induced hepatocarcinogenesis, 504

AS101
protection of bone marrow colony form-
ing units-granulocyte-macrophage
purging with ASTA-Z 7557, 5614

protective and restorative role
combined with chemotherapy, 1499

Asbestos
activation of ornithine decarboxylase
tracheal epithelial cells, 167

exposure
cigarette smoking, malignant mesothelioma, 2263

size-dependent microtubule-mediated
transport
endocytosis, vertebrate lung epithelial
cells, 4942

Ascites
Ehrlich
daunorubicin resistance, decreased
DNA topoisomerase II, 4213

ovarian malignant
infiltrating lymphocytes, tumor cytolysis, 4257

Ascorbic acid

bladder carcinogenesis
L-ascorbic acid amplification, 2548

enhanced effects of 6-hydroxydopamine
hydrogen peroxide, iron-dependent
DNA strand-breaks, 6060

L-Asparagine
measurement of serum levels
L-asparaginase inhibitor, 6568

Asparagine synthetase
hypomethylation and reactivation of
gene
L-asparagine, ethyl methanesulfonate,
985

Assays
DNA repair
field-test validation, circulating human
lymphocytes, 5786

drug sensitivity
human tumor cell line growth, soft
agar culture, 1247

flow cytometry
glutathione S-transferases, cellular glu-
tathione determination, 1783

gp185 antigen shed from mouse tumors
c-erbB2 oncogene overexpression,
2593

inhibitors of tumor-induced angiogenesis,
1339

lung cancer-associated protein, 3838

temporal mapping of differentiation
pathway
murine erythroleukemia cells, 1668

tetrazolium-based
cellular viability, formazan production
parameters, 2515

ASTA-Z 7557
purging
protection of bone marrow colony
forming units-granulocyte-macrophage,
AS101, 5614

Astrocytoma
primary human
angiogenic growth factor genes, 1345

Astroglial cells
chondroitin sulfate proteoglycan expres-
sion
proliferating brain capillary endothelial
cells, 4986

Autocrine motility factor
B16-F1 melanoma
receptor and, purification, 3507

Autocrine-paracrine factors
consequences of "binding site barrier",
4776

Avidin
three-step monoclonal antibodies
tumor targeting, carcinoembryonic anti-
gen-positive patients, 5960

2-Aza-2'-deoxyctydine
ras or myc oncogenes
nontransforming fibroblasts, 324

Azoxymethane
enhancement of colon carcinogenesis
methionine enkephalin, 785

-induced colon carcinogenesis
inhibition by haloperidol, 6150

mechanism, benzylselenocyanate inhibi-
tion, 2826

B

B859-35

SUBJECT INDEX TO VOLUME 51

inhibition of cell proliferation, 5821
Bacillus Calmette-Guérin
 fibronectin-mediated attachment to bladder mucosa
 drugs influencing coagulation pathways, 3726
Bacteriocin
 partially purified
 studies of action, murine fibrosarcoma, 1359
Basal cells
 regression of forestomach lesions, 318
Basement membrane
 invasion of matrix
 lack of correlation, malignant metastatic cell phenotype, 3624
 reconstituted matrix
 malignant metastatic cell phenotype, 405
B-cells
 AIDS and non-Hodgkin's lymphoma, 4743
 diffuse large cell lymphoma
 cell line establishment, 8;22 chromosomal translocation, 5392
 genetic approaches to study molecular basis of human cancer, 5015s
 no expansion of pre-B and B-cell compartments
 bone marrow patient, multiple myeloma, 3224
BCR-ABL proteins
 detection in blood cells
 benign phase chronic myelogenous leukemia, 3048
Benzisoquinolinolide: see Amonafide
Benzyljaceanthrylene
 morphological transformation and DNA adduct formation
 C3H10T $\frac{1}{2}$ cells, 6163
Benz(a)pyrene
 trans-7,8-dihydroxy-anti-9,10-epoxy-7,8,9,10-tetrahydrobenz(a)pyrene
 guanine N², duplex dodecamer, 3482
 -induced mouse forestomach neoplasia inhibition, dietary soy sauce, 2940
Benz(a)pyrene diol epoxide
 inhibition of 2,6-dithiopurine and thiopurine binding
 two-stage tumorigenesis, mouse epidermis, 4859
Benz(a)pyrene phenols
 inhibition of glucuronidation long-chain fatty acids, 4511
N⁶-Benzyl-cAMP
 8-Cl-cAMP and cell cycle effects, HL-60 leukemia cells, 6263
O⁶-Benzylguanine analogues
 sensitivity of human tumor cells cytotoxic effects, alkylating agents, 3367
Benzylselenocyanate
 inhibition azoxymethane-induced colon carcinogenesis, 2826
Bifunctional antibody
 binary radiopharmaceutical delivery system
 colorectal carcinoma, 6650
 enzyme-conjugated antibodies and pharmacokinetic analysis, two-step approaches, 3119
Bile acids
 fecal starch malabsorption, colonic carcinogenesis, 4238
Bile ducts
 liver development cell lineages, oval cell progenitors, 2611
Biologic response modifiers
 tumor transplantation and tumor immunity, 5433
Biotin
 three-step monoclonal antibodies tumor targeting, carcinoembryonic antigen-positive patients, 5960
Bis(2,6-dioxopiperazine) derivatives
 inhibition of intracellular topoisomerase II, 4909
 inhibition of topoisomerase II antitumor agents, 4903
1,3-Bis(2-chloroethyl)-1-nitrosourea
 inhibition of poly(adenosine diphosphate-ribose) polymerase thymidine and its analogues, L1210 cells, 1586
 resistance by γ -irradiation or drug pretreatment
 rat hepatoma cells streptozotocin combination therapy
 O⁶-methylguanine DNA methyltransferase, messenger RNA levels in HT-29 cells, 1581
N,N'-Bis[3-(ethylamino)propyl]-1,7-heptanediamine
 participation of T-cells in curative effect L1210 leukemia, 62
Blacks
 familial breast cancer, 1793
Bladder
 carcinogenesis L-ascorbic acid amplification, K₂CO₃, 2548
 modulation by butylated hydroxytoluene, 2-acetylaminofluorene exposure, 6224
 tumor-promoting effect, urinary epidermal growth factor, 5487
 carcinogens mechanism of resistance, bladder cancer, 514
 tumor promoting activity lack of, sodium saccharin in AIN-76A diet, 1778
 sodium saccharin, sodium ascorbate and calcium salts, 1766
 wall penetration intravesical Mitomycin C, 4347
Bladder neoplasms
 effect of urine on clonal growth, 4631
 fibronectin-mediated *Bacillus Calmette-Guérin* attachment mucosa, drugs influencing coagulation pathways, 3726
genital and urinary tract diseases, 629
H-ras mutations, 3471
human
 molecular genetic alterations, 5405
 inhibition of H-ras expression adeno-associated virus Rep78, 3383
 intravesical administration radiolabeled antitumor monoclonal antibody, 724
 local activation of immune response intraarterial infusion, interleukin 2, 2456
 numerical chromosome 1, 7, 9, and 11 aberrations
 in situ hybridization, 644
pharmacodynamics of Mitomycin C, 3849
pharmacokinetics of intravesical mitomycin C, 5144
photosensitization
 phenoxazone Nile blue derivatives, 1109
prevention of implantation
 single-dose preoperative systemic cyclophosphamide, 1373, 1378
risk of development
 cellular F-actin levels as marker, 2762
 serum levels, dehydroepiandrosterone and its sulfate, 1366
topoisomerase II levels and chemosensitivity, 6592
tumor grade and labeling index
 centromeric copy number, chromosome 7, 3807
Bleomycin
 human tumor resistance metabolic inactivation, 227
 killing hypersensitivity of CHO variants, glutathione S-transferase- α activity, 4463
Blood
 capture and growth of CD8 $^{+}$ and CD4 $^{+}$ T-cells, 3891
 detection of BCR-ABL proteins benign phase chronic myelogenous leukemia, 3048
 micelle-forming polymeric anticancer drug toxicity and antitumor activity, 3229
 peripheral immunological changes, interleukin 2-treated acute leukemia, 964
 rapid clearance immunoglobulin G2a and G2b, nude mice, 3102
Blood flow
 angiogenesis growth and ATPase kinetics, tumors growing in irradiated bed, 3289
 radiation-induced fibrosarcoma-1 tumor metabolism glucose and mannitol effects, nuclear magnetic resonance, 3108
 rate intravenous vs. intraperitoneal glucose injection, normal and tumor tissues, 3612
tumor
 red blood cell rigidity, hyperglycemia, 2727
Blood vessels
 inhibition of tumor growth platelet factor 4 analogue, angiostatic activity, 2077
B-lymphoid cells
 diphtheria toxin A-chain coding sequence immunoglobulin genes, 4299

SUBJECT INDEX TO VOLUME 51

Body weight
changes in
prior to cancer diagnosis, 3198

Bombesin
analogues
inhibition of growth, small cell lung cancer, 1798

gastrin releasing peptide antagonist
inhibition of growth, human colon cancer xenografts, 6006

RC-3095 and RC-160
inhibitory effect, nitrosamine-induced pancreatic cancer, 5980

Bone
breast cancer metastases
localization, parathyroid hormone-related protein, 3059

fibroblasts
prostate cancer growth acceleration, 3753

Bone marrow
biodistribution and dosimetry
infusion, antibodies labeled with ^{131}I , 5921

colony forming units-granulocyte-macrophage
protection with AS101, purging with ASTA-Z 7557, 5614

elimination of breast cancer cells
reactivity, anti-CD15 monoclonal antibody PM-81, 2451

human hematopoietic progenitors
transforming growth factor- β , 4828

human multidrug resistance gene
chemotherapy and chemosensitization, transgenic mice, 5417

immunological changes
interleukin 2-treated acute leukemia, 964

leukemic human hematopoietic progenitors
cytotoxic activity, antitransferrin receptor immunotoxin, 536

no expansion of pre-B and B-cell compartments
multiple myeloma, 3224

sensitivity of immunocytochemical detection
breast cancer cells, 2706

topoisomerase II levels
granulocytic maturation, 3534

transplantation
induction of graft vs. leukemia effect, interleukin 2, 2015

Boron neutron capture theory
biological efficacy
boronated low-density lipoprotein, 4588

Bowman-Birk protease inhibitor
expression of oncogenes
irradiated rat colon, 4539

inhibition of proteolytic activity
human fibroblasts, 5539

Bradykinin
stimulation of clonal growth
small cell lung cancer, 3621

Brain
fetal rat
glioblastoma cell invasion, alkyl-lysophospholipid, 1713

human normal and tumor tissue
 O^6 -methylguanine-DNA methyltrans-

ferase, 4131

lack of parenchymal infiltration
overexpression of oncogene products, tumor progression, 3595

metastases
malignant potential of cells, melanoma, 2029

proliferating capillary endothelial cells
chondroitin sulfate proteoglycan expression, malignant phenotype of astroglial cells, 4986

tumor xenografts
preclinical antitumor activity, penclo-dine, 1979

Brain neoplasms
immunogenic and nonimmunogenic phenotype and functional activity, tumor-infiltrating lymphocytes, 2373

large-animal tumor xenograft model
immunosuppressed cats, 2430

nonastrocytic
p53 mutations, 6202

Breast
cyst fluid
esterase, purification and properties, 1092

fibroblasts
growth factor messenger RNA expression, benign and malignant lesions, 4978

neoplasia
 β 1-6 branched oligosaccharides, tumor progression, 718

neoplastic and nonneoplastic tissue
fibrinolysis pathways, 354

partial characterization, proteoglycans, 1443

normal female
estrogen and progesterone receptors, 1817

Breast neoplasms
advanced
pS2 expression and response, hormonal therapy, 624

antiestrogen with clinical potential, 3867

-associated epitope
monoclonal antibody 3E1.2, N-glycolylneurameric acid, 5826

binding analysis of estrogen receptor DNA target site, 3405

c-erbB2 oncogene overexpression
gp185, antigen shed from mouse tumors, 2593

combined effects
1,25-dihydroxyvitamin D₃, platinum drugs, 2848

dissociation of estrogenic and cytotoxic properties
estrogen receptor-binding platinum complex, 3217

estradiol receptor-positive
epidermal growth factor receptor-negative tumors, 4544

estradiol-stimulated growth
androgen and EM-170, athymic mice, 3131

estrogen receptor
constitutive transcriptional activity, 105

evolution of progestin resistance, 2051

factors influencing mutation
hprt locus, T-cells, 6603

familial
blacks, 1793

female
major alterations in nucleotide structure, DNA, 5430

follow-up study of twenty-four families
Li-Fraumeni syndrome, 6094

gonadotropin-releasing hormone gene expression, 2577

growth
inhibition of c-myc expression, phosphorothioate antisense oligonucleotide, 3996

induction of cachexia and systemic fibrosis
transforming growth factor- β 1, nude mice, 3590

inhibition of cell cycle kinetics and proliferation
5 α -dihydrotestosterone, antiestrogen, 2797

internalization of murine monoclonal antibody
HER-2/neu gene product c-erbB-2, 5361

lactoferrin and polymorphism, 3037

M, 46,000 human milk fat globule protein, 4994

milk epithelial cells
loss of heterozygosity, short arm of chromosome 11, 294

monoclonal antibody against c-erbB-2 protein
enhanced cisplatin cytotoxicity, 4575

node-negative
c-erbB-2 amplification, risk of recurrent disease, 556

new cell line
androgen sensitivity, 5722

oxygenation, 3316

parathyroid hormone-related protein in metastases
localization, incidence in bone, 3059

primary
accumulation, genetic alterations, 5794

fibrinogen deposition, no thrombin generation, 349

HER-2/neu amplification, 944

p53 gene mutations, 6194

somatic imbalance, marker alleles for chromosome 1, 1020

progesterin regulation
alkaline phosphatase, 4470

prognosis
c-erbB-2 and estrogen receptor status, 3296

estrogen and progesterone receptors, 1,25-dihydroxyvitamin D₃ receptor, 239

progression
maintenance, p53 alterations, 2605

pyrrolidine-4-iodotamoxifen and 4-iodotamoxifen
new analogues of tamoxifen, 5851

reactivity of anti-CD15 monoclonal antibody PM-81
elimination of cells, bone marrow, 2451

risk of
serum and urinary androgens, postmenopausal women, 2572

SUBJECT INDEX TO VOLUME 51

sensitivity of immunocytochemical detection
human bone marrow, 2706
tumor-associated antigen
monoclonal antibody BCA 227, 1537
vinorelbine-loaded polymeric bioresorbable implants, 5384

Breeding stock
tumor transplantation and tumor immunity, 5433

Bromocriptine
azoxymethane-induced colon carcinogenesis
inhibition by haloperidol, 6150

5-Bromo-2'-deoxyuridine
incorporation into DNA of glioma cell lines
modulation, fluoropyrimidines, 870

Bryostatin 1
successful treatment of murine melanoma, 682

Busulfan
hepsulfam
Phase I and pharmacokinetic study, 5781
Phase I clinical and pharmaceutical trial, 6268

Buthionine sulfoximine
toxicity of verapamil and doxorubicin multidrug resistant cells, 67

Butylated hydroxytoluene
modulation of liver and bladder carcinogenesis
chronic low-level exposure, 2-acetylaminofluorene, 6224

C

CA 15.3
relative operating characteristic analysis group modeling, tumor markers in breast carcinoma, 1904

CA 125
determinants
coexpression, different antigenic markers, 468

Cachectin
tumor necrosis factor
decrease in catalase activity, rat liver, 3990

Cachexia
anticachetic and antitumor effect
protein turnover, eicosapentaenoic acid, 6089
changes in plasma cholesterol and cancer, 3198
development
tumor growth, indomethacin, cytokines and cyclosporin A, 880
experimental model
 γ -interferon, tumor necrosis factor- α , 2303
leukemia-inhibitory factor
mice bearing melanoma cells, 6656
tissue lipoprotein lipase activity
mRNA levels, tumor-induced alterations, 863
tumor growth and development
tumor necrosis factor- α , interleukin 1, 415

E-Cadherin
P-cadherin and

expression in gastric carcinoma, 2185
squamous cell carcinomas
head and neck, lymph node metastasis, 6328

Caffeic acid
forestomach and kidney carcinogenicity rats and mice, 5655

Caffeine
modulation of effects
DNA-intercalating drugs, 3682

Cain Memorial Award Lecture, 5

Calbindin
hybrid human endogenous retrovirus and prostate cell line PC3, 4107

Calcitol
induction of nonphosphorylated osteopontin
mouse JB6 epidermal cells, 2144

Calcium
altered intracellular regulation
colorectal cancer, "normal" adjacent mucosa, 4492
cytosolic
hyperthermia, digitized imaging microscopy, 359
dietary
vitamin D and, colonic carcinogenesis, 5608

intracellular
epidermal neoplasia, 4206

programmed death
nonproliferating androgen-independent cancer cells, 4693

stimulation of mobilization by galanin
inositol phosphate accumulation, small cell lung cancer, 1674

supplemental
K-ras mutations, 1,2-dimethylhydrazine-induced colonic tumors, 4305
suppression of colonic ornithine decarboxylase, adenomatous polyps, 3416
vitamin D and colon cancer, 3069

Calcium salts
sodium saccharin and sodium ascorbate
bladder tumor promoting activity, 1766

Calyculin
inducible expression
neuroblastoma cell differentiation, Schwann-like cell lines, 1733

Camtotoxin
antitumor effect of CPT-11
intracellular roles, SN-38, 4187

derivatives and
c-jun expression, human myeloid leukemia cells, 6636

ionizing radiation and topotecan
synergistic cell killing, 5813

MDR1-mediated resistance
human KB carcinoma cells, 6039
teniposide or 4'-(9-acridinylamino)-3-methanesulfon-m-aniside
degradation of nuclear DNA, S phase of HL-60 cells, 1165

topoisomerase II-directed chemotherapeutic agents and
antagonism, human leukemia cell line, 1129

20-(S)-Camptothecin
complete growth inhibition
human cancer xenografts, nude mice, 3052

Capillary
filtration coefficient
measurement, solid tumors, 1352

Carbohydrate
breast tumor-associated antigen
monoclonal antibody 3E1.2, N-glycolylneurameric acid, 5826

dietary
growth of dysplastic crypt foci, colon, 3721

Carboplatin
combined with whole body hyperthermia
normal tissue and tumor, rats, 2994

detection of DNA modifications
monoclonal antibody, 123

Carcinoembryonic antigen
anti-CEA antibodies
induction of antigen-specific immune response, anti-idiotypic monoclonal antibodies, 2599

binary radiopharmaceutical delivery system
bifunctional antibody, colorectal carcinoma, 6650

control of gene family expression
differentiating colon carcinoma, 3526

different molecular weight in normal colon and cancer cells
N-glycosylation differences, 5679

endogenous lactose-binding lectin
metastatic stages, colorectal carcinoma, 387

expression of resurgent human colon carcinoma
 $90Y-\alpha$ -carcinoembryonic antigen monoclonal antibody, 3802

-positive patients
three-step monoclonal antibodies, 5960

preparation of synthetic polypeptide domains
epitope mapping, 1876

-related human gastric gene product,
5694

relative operating characteristic analysis
group modeling, breast carcinoma, 1904

serum
tumor-associated glycoprotein-72 levels, interferons, 4155

transduction and expression of antigen gene
murine colon carcinoma cell line, 3657

^{90}Y -labeled C110 anti-CEA antigen immunotoxin
preclinical assessment, colon cancer, 255

Carcinogenesis
aflatoxin B₁
promotion by indole-3-carbinol, 2362
allelotyping of renal cell carcinoma, 820
bioassays
mechanistic and statistical insight, *N*-nitrosodiethylamine and *N*-nitroso-dimethylamine, 6409

bladder
L-ascorbic acid amplification, K₂CO₃, 2548
tumor-promoting effect, urinary epidermal growth factor, 5487

cancer and, 6215

c-erbB-2 proto-oncogene products

SUBJECT INDEX TO VOLUME 51

immunoscintigraphy, 990
cervical
 role of human papillomaviruses, 5019s
 chemical and physical
 advances and perspectives for the
 1990s, 5023s
colonic
 chemoprevention, 4528
 enhancement of methionine enkephalin, azoxymethane, 785
 induction by azoxymethane, benzylsuccinocyanate inhibition, 2826
 initiation and promotion, ω -3 and ω -6 fatty acids, 487
 modulation, dietary calcium and vitamin D, 5608
 starch malabsorption, fecal bile acids and neutral sterols, 4238
diethylnitrosamine-induced
 strain-specific sensitivity, hepatocytes, 3257
drug-metabolizing enzymes
 liver epithelial cells, procarcinogens, 301
experimental
 inhibition by haloperidol, rat colon, 6150
forestomach
 phenolic antioxidants, *N*-methyl-*N'*-nitro-*N*-nitrosoguanidine, 824
 frequent induction of mammary carcinoma
neu oncogene transfer, 5649
gastric
N-methyl-*N'*-nitro-*N*-nitrosoguanidine, low-protein diet, 3493
N-methyl-*N'*-nitro-*N*-nitrosoguanidine, deoxycorticosterone acetate-NaCl hypertensive rats, 2863
 genetic errors and cell proliferation, 6493
hepatocellular
 chromosome abnormalities, peripheral blood cells, 6176
hormonal, 3626
 inhibition in mammary gland
 dietary dehydroepiandrosterone, 481
liver and bladder
 modulation by butylated hydroxytoluene, 2-acetylaminofluorene exposure, 6224
liver and lung
 genetic susceptibility, mice, 6299
lung
 bronchial epithelial cells, *c-raf-1* and *c-myc*, 3793
mouse colon
 heterogeneity of ornithine decarboxylase, human colon tumors, 2069
multistage
 mutator phenotype, 3075
multistep transformation
 cell-cell communication, ovarian granulosa cell culture, 696
***N*-nitrosobenzylmethylamine**
 inhibitory effects of phenethyl isothiocyanate, rat esophagus, 2063
nonfamilial neoplasia of large intestine
 rectal mucosa cell proliferation, 1917
 origin and development of cancer
 cellular adaptation, 2751
 17p allelic deletions

p53 protein overexpression, Barrett's adenocarcinoma, 5482
pulmonary
 mouse, memorial to Dr. Michael B. Shimkin, 450
 resistance to growth inhibitory effects transforming growth factor- β 1, liver epithelial cells, 5929
skin
 diet and calorie restriction, Sencar mouse model, 1851
 two-stage epidermal dietary arginine restriction, ornithine and polyamine metabolism, 2932
 ultraviolet radiation-induced murine tumors
 absence, UV-induced systemic tumor immunosuppression, 2773
Carcinogenicity
 1-, 2- and 4-nitropyrene structurally related compounds, female rats, 2902
 forestomach and kidney
 caffeine acid, rats and mice, 5655
 studies of tobacco extract
 vitamin A-deficient Sprague-Dawley rats, 3018
Carcinogens
 bladder mechanisms of resistance, bladder cancer, 514
 -induced lymphomagenesis
pim-1 transgenic mice, 958
 p53 mutations, 6185
 rapid evolution field of molecular epidemiology, 3617
 spontaneously occurring non-liver tumors
 activation, protooncogenes, 1148
Carcinoma cells
 production of paracrine growth factors fibroblast and endothelial cell growth, 5253
Carcinoid neoplasms
 metastatic early invasiveness, transgenic mice, 4917
Carcinoma
 altered protein kinase C activity biopsies, 205
 cell lineage studies "resistant hepatocyte" model system, 1308
 1,25-dihydroxyvitamin D₃ receptors, 2021
in situ transfer of v-Ha-ras replication-defective retrovirus vectors, mammary epithelial cells, 2642
 invasive accessory sex organs, 3,2'-dimethyl-4-aminobiphenyl and testosterone propionate, 1264
 multidifferentiated *c-raf-1* and *c-myc*, 3793
 primary and metastatic tumor cell populations expression, HLA-A, -B, -C antigens, 6372
 stimulation of epithelial tumor cell motility tumor necrosis factor, 5315
Carcinoma, basal cell

cytogenetic analysis, 954
Carcinoma, bladder
 inactivation of retinoblastoma gene, 5736
 mechanism of photosensitization microsphere-bound chlorin e₆, 4410
Carcinoma, breast
 major alterations nucleotide structure of DNA, 5430
 monoclonal antibody immunohistochemistry, 15A8-glycyl-tyrosyl-(*N*-*e*-diethylenetriamine pentaacetic acid)-lysine, 5744
 prognostic significance of P120, 1973 relative operating characteristic analysis group modeling, tumor markers, 1904
Carcinoma, bronchogenic
 HLA class I and II antigens, 4948
 immortalization of normal bronchial epithelial cells
 human papillomaviruses 16 or 18, 5370
 phenotype and function natural killer cells, 5596
Carcinoma, cervical
 interstitial hypertension tumor oxygenation, radiation response, 6695
 oxygenation of, 6098
 therapy monoclonal antibody-*Pseudomonas exotoxin* conjugates, 4001
Carcinoma, colonic
 amiloride treatment, 1039
 cellular growth response
 epidermal growth factor, 1452
 differentiating control, carinoembryonic antigen gene family, 3526
 establishment of quiescent state differential regulation, *c-myc* and TGF- α messenger RNA, 2256
 interferon enhancement of radioimmunotherapy, 2335
 mechanisms of resistance etoposide and teniposide, 5275
 metastatic insulin-like growth factor I, tyrosine phosphorylation, 5859
 reversal of Adriamycin resistance α -interferon, 4898
 transduction and expression human carinoembryonic antigen gene, mouse, 3657
Carcinoma, colorectal
 acetylator polymorphism, 2098
 -associated antigen monoclonal antibody, 926
 binary radiopharmaceutical delivery system bifunctional antibody, 6650
 cytotoxic effects of acoustic cavitation HT-29 cells, peritoneal carcinomatosis, 3024
 loss of heterozygosity p53 protein expression, 4436
Carcinoma, embryonal
 binding to insulin-like growth factors differentiation, 4395
 induction of *in vitro* differentiation inhibitors of topoisomerases, 5398
Carcinoma, endometrial

SUBJECT INDEX TO VOLUME 51

allelic loss on chromosome 17p and *p53*
 mutations, 5632
 patterns of differentiation
 extracellular matrix, 5661

Carcinoma, esophageal
 autocrine stimulation
 overexpression, epidermal growth factor and insulin-like growth factor-I receptors, 1898
 deletion of 17p
 amplification of *int-2* gene, 2113

Carcinoma, gastric
 E- and P-cadherin expression, 2185
 gene loss, 2926
 liver metastasis
 autotumor-reactive T cell clones, tumor-infiltrating lymphocytes, 6153

Signet ring cell
 cell line establishment, *c-myc* oncogene, 381
 transforming growth factor- β release
 contraction, collagen-matrix gels containing fibroblasts, 3550
 tumor-associated *M*, 110,000 gene product
 relation to carcinoembryonic antigen, 5694

Carcinoma, hepatocellular
 aberrations of tumor suppressor *p53*
 retinoblastoma genes, 5520
 association with hepatitis C virus antibodies
 Taiwan, 5621
 chromosome abnormalities
 peripheral blood cells, hepatitis B virus chronic carriers, 6176
 elevated levels of transforming growth factor- β messenger RNA
 polypeptide and, 4080
 hepatitis B virus integration event
 chromosome 17p near *p53* gene, 49
 hepatitis C and hepatitis B Japanese population, 2842
 histochemical profile
 diethylnitrosamine, 1952
 interleukin 6-*Pseudomonas* exotoxin chimeric molecules
 antitumor activity, 2831
 loss of somatic heterozygosity, 4367
 membrane-associated glycoprotein gp43 monoclonal antibody, 2158
 primary
 allelotype study, 89
 transcatheter arterial embolization
 evaluation, nontumorous tissue damage, 5667

Carcinoma, Lewis lung
 3LL metastatic variants
 differential expression, transforming growth factor- β 1 gene, 5491

Carcinoma, lung
 activation of *myc* gene family
 heterotransplantation, nude mice, 2566
 gene mutations
p53, *ras* and *p53*-heat shock 70 protein complexes, 4090
 mechanisms of resistance
 etoposide and teniposide, 5275

Carcinoma, mammary
 dose-responsive
 intraperitoneal injection, 1-methyl-1-

nitrosourea, 3411
 effects of thyroid hormone
 androgen- or basic fibroblast growth factor, proliferation, 4323
 frequent induction following *neu* oncogene transfer, 5649
 isolation of two distinct epithelial cell lines
 single feline mammary carcinoma, heterogeneity, 4028
 microvascular architecture, 265
 rat model
 mechanisms, drug resistance, 1434
 suppressor gene
 v-H-ras oncogene transfer, mammary epithelial cells, 5298
 tumorigenesis
 indomethacin, high- or low-fat diet, 2683

Carcinoma, non-small cell lung
 absence of expression
 retinoblastoma protein, 2735
 correlation of modal chromosome number
 DNA index, solid tumor tissue, 3267

Carcinoma, ovarian
 anomalous relationship between cisplatin sensitivity
 formation and removal of platinum-DNA adducts, 4557
 antiproliferative effect of interleukin 1, 1823
 broad cross-resistance
 multifactorial mechanisms, cyanomorpholine doxorubicin, 5181
 cloning of tumor-associated antigen monoclonal antibodies, folate binding protein, 6125
 distinction of low grade from high grade loss of heterozygosity, genetic abnormalities, 4045
 granulocyte-macrophage colony-stimulating factor
 chemotherapy, 116
 Na⁺, K⁺-adenosine triphosphatase accumulation of *cis*-diamminedichloroplatinum(II), 3677
 photoimmunotherapy, 4762
 single step selection
cis-diamminedichloroplatinum(II) resistant mutants, 2242
 tumor necrosis factor expression, 4476
 xenografts
 malignant behavior, resistance to cisplatin, 6358

Carcinoma, prostatic
 activated *ras* alleles, 1632
 androgen-independent
 autonomous growth, transforming growth factor- α , 2780
 disruption of cellular energy balance suramin, 6629

Carcinoma, renal cell
 allelotype, 820
 augmentation of immunity
 Adriamycin and interleukin 2, 6133
 clear cell phenotype
 allelic loss, chromosome 3p, 949
 common regions of deletion chromosomes 5q, 6q and 10q, 5817
 down-regulation of epidermal growth factor receptors

α -interferon, 5881
 genetic changes in origin and development
 molecular analysis, 1071
 hereditary
 altered expression, transforming growth factor- α , 2973
 nonrandom loss, chromosomes 5 and 6, 4415
 inactivation of retinoblastoma gene, 5736
 inhibition of cell growth
 interleukin 4, γ -interferon or α -tumor necrosis factor, 5687
 sporadic
 detailed deletion mapping, short arm of chromosome 3, 4707
 tumor-infiltrating lymphocytes with and without interleukin 2, 4199

Carcinoma, Shionogi
 proliferation
 glucocorticoid-induced autocrine heparin-binding growth factors, 3006

Carcinoma, small cell lung
 hematopoietic growth factors, 73

Carcinoma, spindle
 progression of squamous carcinoma
 H-ras alleles on chromosome 7, 4097

Carcinoma, squamous cell
 A9 antigen
 integrin $\alpha^6\beta_4$, 2395
 antiproliferative effects
 tyrophostins, 4430
 associated paraneoplastic syndrome
 epidermal growth factor receptor pathway, 2438
 esophageal
 frequent loss of heterozygosity, retinoblastoma locus, 5766
 prognostic significance, argyrophilic nucleolar organizer regions, 5339
 significance, *int-2/hst-1* coamplification, 1504
 genetic susceptibility of the lung
 relation to cigarette smoking dose, 5177
 head and neck
 E-cadherin expression, lymph node metastasis, 6328
 preclinical activity, gemcitabine, 211
 oral and epidermal
 abnormal expression, retinoic acid receptors and keratin 19, 3972
 progression to spindle carcinoma
 mouse skin, H-ras alleles on chromosome 7, 4097
 transforming growth factor- α pathway, 6254

Carcinoma, thymic
 novel t(15;19)(q15;p13) chromosome abnormality, 3327

Carcinoma, transitional cell
 bladder wall penetration
 intravesical Mitomycin C, 4347
 papillary
 H-ras induction of invasive phenotype, epidermal growth factor receptors, 4486

Carcinoma, uterine
p53 gene analysis, 6506

Carcinoma cells
 binding of thrombospondin

SUBJECT INDEX TO VOLUME 51

M, 80,000/105,000 receptor, 3648
damage and differential cytotoxicity in DNA-produced, 6586
individual micrometastatic
 frequent down-regulation, major histocompatibility class I antigen expression, 4712
MDR1-mediated resistance
 camptothecin, 6039
receptor expression
 distinct domains, thrombospondin, 1645
schedule-dependent enhancement of cytotoxicity
 fluoropyrimidines, folinic acid, 4618
CAR-3 macromolecules
 normal and transformed endometrium diagnosis, postmenopausal patients, 3001
Carmethizole
in vivo and in vitro evaluation, 4581
Catalase
decrease in activity
 tumor necrosis factor, liver, 3990
Cathepsin B
messenger RNA
stage-specific increases, colorectal carcinoma, 1137
Cathepsin L
expression in human tumors, 1478
CCRF-CEM cells
inhibition of primer RNA formation
 fludarabine triphosphate, 1829
normal and mutant glucocorticoid receptor gene, 5224
nucleotide metabolism
(6R)-5,10-dideaza-5,6,7,8-tetrahydrofolic acid, 2291
CD3
anti-CD3-stimulated T cells
 interleukin 2 liposomes, hepatic metastasis, 2127
T-cell receptor
 discordant gene and surface expression, adult T-cell leukemia, 6084
CD4⁺ cells
immature
N-methyl-N-nitrosourea, lymphoma development, 737
CD15
anti-CD15 monoclonal antibody
elimination of breast cancer cells, bone marrow, 2451
CD19
immunotoxin prepared with blocked ricin
therapeutic use, 6235
CD44
high and low levels
melanoma cell variants, 6660
splice variants
metastatic behavior, tumor cell lines, 5292
CD56
CD57 and
human neural and striated muscle cells, 1300
CDPGYIGSR-NH₂
inhibition of angiogenesis and tumor growth, 903
Cell culture
soft agar

morphometric and colorimetric analyses, human tumor cell line growth and drug sensitivity, 1247
Cell cycle
activation of late G₁ genes
interleukin 3-dependent proliferation, human MO-7e cell line, 1741
cellular response to DNA damage participation of p53 protein, 6304
developmental genetics and childhood cancer, 5435
7β,8α-dihydroxy-9α,10α-epoxy-7,8,9,10-tetrahydro benzo(a)pyrene mutations
HPRT gene, XP12BE cells, 2587
DNA cross-links and apoptosis
nitrogen mustard sensitivity, Burkitt's lymphoma, 6550
DNA repair characteristics
xeroderma pigmentosum, patients from Germany, 3456
effects of 8-Cl-cAMP and N⁶-benzyl-cAMP
kinetics, HL-60 leukemia cells, 6263
estimation of proliferative activity
cytochalasin B, 5134
G₁ phase growth arrest
cell resistance, IL-1/IL-6/TNF/TGF-β, 2379
G₂ block induced by ionizing radiation cyclin B expression, HeLa cells, 5113
inhibition of kinetics and proliferation 5α-dihydrotestosterone and antiestrogen, breast cancer, 2797
S-phase probes
flow cytometry, antibodies to proliferating cell nuclear antigen, 4570
synchronization
tumor and normal cells from G₁, lovastatin, 3602
Cell death
programmed
androgen-independent prostatic cancer, 4693
secondary DNA fragmentation
topoisomerase II inhibitors, human tumor cell lines, 6280
thymidylate synthase inhibition
2'-deoxyuridine-5'-triphosphate accumulation, 2346
transforming growth factor-β cultured rat hepatocytes, 2478
truncated glucocorticoid receptor P1798 mouse lymphosarcoma, 2786
Cell membrane
signaling
target in cancer therapy, 1613
Cell wall
Nocardia rubra
 interleukin 2 and, LAK cell induction, 5261
Nocardia rubra skeleton
 antitumor effect, syngeneically transplanted P388 tumors, 4038
Central nervous system
neoplasms
insulin-like growth factor binding proteins, 3030
primitive neuroectodermal tumors loss of heterozygosity, 6q/16q/17p, 639
c-erbB-2

estrogen receptor status and prognostic significance, breast cancer, 3296
internalization of murine monoclonal antibody, 5361
Cerebrospinal fluid
pharmacokinetics
1-β-D-arabinofuranosylcytosine, 1-β-D-arabinofuranosyluracil, 4141
Cervical neoplasms
serum folate levels, 4785
Cervix
secretions
 HPV-related cervical disease, HPV-16-specific antibody, 4423
uterine
oxygenation of carcinomas, 6098
c-fos
phorbol ester-induced expression
inhibition of cell proliferation, B859-35, 5821
CGP 31362
therapy of spontaneous lung metastasis murine renal adenocarcinoma, 3741
Chemoimmunotherapy
adoptive
 polyethylene glycol-cultured spleen cells, plasmacytoma, 4516
Chemoprevention
cancer, 5080s
chemical form of selenium
critical metabolites, cancer prevention, 595
colon carcinogenesis
 piroxicam and α-difluoromethylornithine, 16α-fluoro-5-androsten-17-one and ellagic acid, 4528
dietary dehydroepiandrosterone tumorigenesis, premalignant colonic epithelium, 476
N-(4-hydroxyphenyl)retinamide
primary prostate cancer, 3610
inhibition of protein isoprenylation dehydroepiandrosterone, colonic adenocarcinoma cells, 6563
need for end point validation
putative biomarkers, colon cancer, 6388
suppression of colonic ornithine decarboxylase
supplemental calcium, adenomatous polyps, 3416
Chemoresistance
survival after treatments with anticancer agents
Chinese hamster cells, M, 27,000 heat shock protein, 5245
Chemosensitivity
topoisomerase II level
human tumor cell lines, 6592
Chemotaxis
endothelial cell supernatants, AIDS-related Kaposi's sarcoma, 2670
Chemotherapy
androgen-primed
Dunning R3327 G model, prostatic cancer, 1760
antitumor drugs and interleukin 1α combination effect, syngeneic tumors in mice, 215
1,3-bis(2-chloroethyl)-1-nitrosourea re-

SUBJECT INDEX TO VOLUME 51

sistance
 γ -irradiation or drug pretreatment, hepatoma cells, 1217
 chemosensitization and
 human multidrug resistance gene in bone marrow, transgenic mice, 5417
 cisplatin-containing
 tumor-infiltrating lymphocytes, epithelial ovarian cancer, 1934
 combination regimens
 myc family DNA amplification, 1708
 factors influencing mutation
 $hprt$ locus in T-cells, breast cancer treatment, 6603
 granulocyte-macrophage colony-stimulating factor
 ovarian carcinoma, 116
 intercellular transfer of drug resistance, 1190
 lonidamine and hyperthermia
 combination therapy, RIF-1 tumor, 5910
 new developments in clinical oncology, 5060s
 platinum/cyclophosphamide
 P-glycoprotein expression, ovary, 5915
 protective and restorative role of AS101, 1499
 targeting
 chemical engineering, monoclonal antibody A7, 4310
 topoisomerase II-directed
 camptothecin, human leukemia cell line, 1129
 type II inosine 5'-monophosphate dehydrogenase
 messenger RNA expression, up-regulation, 3886
Chinese hamster ovary cells
 attenuated topoisomerase II content correlation, low level of drug resistance, 6543
 ethanol potentiation
 doxorubicin-induced inhibition, cell survival, 2036
 glucose transporter expression
 thymidine uptake, 4450
 hypersensitivity of variant BL-10
 bleomycin killing, lack of glutathione S-transferase- α activity, 4463
 inhibition of growth
 adenosine metabolite, 8-chloroadenosine 3',5'-monophosphate, 1600
 phenotype conferring selective resistance lipophilic antifolates, 2949
 resistance to Mitomycin C
 aerobic conditions, DT-diaphorase deficiency, 1860
 variants
 increased tumorigenicity, fibronectin receptor deficiency, 1738
Chitin derivatives
 sulfated
 tumor-induced angiogenesis, 22
Chloramphenicol acetyltransferase
 enhanced promoter activity
 human *M*, 72,000 type IV collagenase gene, metastatic cell line, 6190
Chlorin e₆
 microsphere-bound
 mechanism of photosensitization, bladder carcinoma cells, 4410
8-Chloroadenosine 3',5'-monophosphate
 cAMP analogue distinctions, 6206, 6207
 inhibition of growth
 Chinese hamster ovary and Molt-4 cells, 1600
 N⁶-benzyl-cAMP and
 cell cycle effects, HL-60 leukemia cells, 6263
2-Chloro-2'-deoxyadenosine
 pharmacokinetics in humans, 5570
2-Chloro-9-(2-deoxy-2-fluoro- β -D-arabinofuranosyl)adenine
 K562 cellular metabolism
 inhibition of human ribonucleotide reductase, DNA polymerases, 2386
Chloroethylnitrosourea
 -sensitive Chinese hamster cell lines, 195
3'-[3-(2-Chloroethyl)-3-nitrosoureido]-3'-deoxythymidine
 inhibition of poly(adenosine diphosphate-ribose) polymerase thymidine and its analogues, L1210 cells, 1586
Cholangiocarcinoma
 multiple K-ras codon 12 mutations polymerase chain reaction technique, 3497
Cholangiofibrosis
 furan-induced rats, 5752
Cholecystokinin
 stimulation of clonal growth small cell lung cancer, 3621
Cholesterol
 changes in prior to cancer diagnosis, 3198
Choline
 deficiency
 liver folate content and distribution, methotrexate treatment, 16
Chondroitin sulfate
 partial characterization of proteoglycans neoplastic and nonneoplastic breast tissue, 1443
 proteoglycan expression
 proliferating brain capillary endothelial cells, malignant phenotype of astroglial cells, 4986
Choriocarcinoma
 gestational prostanocyclin, thromboxane, 4146
Chromatin
 differential introduction and repair psoralen photoadducts, specific human genes, 2867
 nickel(II)- and cobalt(II)-dependent damage
 hydrogen peroxide, DNA bases, 5837
Chromatography
 high performance liquid preliminary metabolic fate, navelbine, 2073
Chromosome
 1, 7, 9, and 11 aberrations, bladder cancer, 644
 5 and 6 nonrandom loss, hereditary renal cell carcinoma, 4415
 1q, 5q, and 17p loss of heterozygosity, gastric carcinoma, 2926
 5q, 6q, and 10q trisomy

common regions of deletion, renal cell carcinoma, 5817
 18q and *DCC* gene
 susceptibility, hereditary nonpolyposis colorectal carcinoma, 4135
 abnormalities
 histologic and clinical features, Wilms' tumor, 5937
 peripheral blood cells, 6176
AIDS and non-Hodgkin's lymphoma, 4743
 allelotype of renal cell carcinoma, 820
 breakpoint t(11;14)(q23;q32)
 molecular cloning, B-cell lymphoma, 1574
 deletion of 17p
 amplification of *int-2* gene, esophageal carcinoma, 2113
 genetic abnormalities
 ovarian tumor development, 4045
 genetic approaches to study
 molecular basis of human cancer, 5015s
 growth factor abnormalities
 leukemia, 2494
 induced damage
 individual susceptibility, genotoxic exposures, 5266
 interphase cytogenetics
 classical karyotyping, *in situ* hybridization, 1959
 interstitial deletion
 4q11-q13, human hepatoma cell line, 1460
 locations of *MYB* related genes
 AMYB and *BMYB*, 3821
 mapping of galactoside-binding protein, 2173
 modal number
 DNA index of solid tumor tissue, non-small cell lung carcinoma, 3267
 molecular analysis of genetic changes
 origin and development, renal cell carcinoma, 1071
 nonrandom losses
 stepwise neoplasia, uroepithelial cells, 3323
 novel t(15;19)(q15;13) abnormality
 thymic carcinoma, 3327
 oncogenic mechanisms
 radiation-induced cancer, 2740
 rearrangements
 deletions, point mutations, 5440
 region 5q12-13
 human gene, phosphatidylinositol-3 kinase associated p85 α , 3818
 renal cortical tumors
 characterization, 1544
 8;22 translocation
 diffuse large cell lymphoma, cell line establishment, 5392
 t(4;11), t(9;11), t(11;19) translocations
 cloning of *ALL-1* locus, 6712
Chromosome 1
 somatic imbalance of marker alleles primary breast carcinoma, 1020
 trisomy
 association, mesothelial cell transformation, 4059
Chromosome 3
 detailed deletion mapping of short arm sporadic renal cell carcinoma, 4707

SUBJECT INDEX TO VOLUME 51

Chromosome 3p
allelic loss
 clear cell phenotype, renal cell carcinoma, 949

Chromosome 6
loss of heterozygosity for loci on long arm
 human malignant melanoma, 5449

Chromosome 7
centromeric copy number
 tumor grade and labeling index, bladder carcinoma, 3807

imbalance of alleles
 progression of squamous cell carcinoma, H-ras, 4097

Chromosome 9
deletion mapping
 interferon α and interferon β -1 gene deletions, glial tumors, 1684

Chromosome 11
allelic loss in hereditary and sporadic tumors
 familial multiple endocrine neoplasia type 1, 1154

short arm
 loss of heterozygosity, milk epithelial cells, 294

Chromosome 11q23
rearrangements
 hematopoietic tumor-associated t(11;14) and t(11;19) translocations, 6708

Chromosome 13
inactivation of retinoblastoma gene
 human bladder and renal cell carcinoma, 5736

Chromosome 17
infrequent p53 gene mutations
 medullablastoma, 4721

Chromosome 17p
allelic loss
 p53 mutations, endometrial carcinoma, 5632

hepatitis B virus integration event
 nearness to p53 gene, hepatocellular carcinoma, 49

C3H10T½ cells
morphological transformation and DNA adduct formation
 benzylacetanhydrene, 6163

CI-937
Phase I pharmacokinetic and pharmacodynamic study, 6317

Cigarette smoking
asbestos exposure and malignant mesothelioma, 2263

association between hepatitis C virus antibodies
 hepatocellular carcinoma, Taiwan, 5621

cytochrome P-450 activation, 5284

genetic susceptibility
 squamous cell carcinoma, lung, 5177

genital and urinary tract diseases
 bladder cancer, 629

lung cancer in women, 4893

use of mentholated cigarettes
 lung cancer risk, 6510

Cisplatin: see *cis*-Diamminedichloroplatinum(II)

8-Cl-cAMP: see 8-Chloroadenosine 3',5'-monophosphate

Clerodin
heat-stable topoisomerase II-DNA cleavable complex, 2922

Clostridium perfringens
recombinant, membrane-acting immunotoxin, 465

c-myb
antisense oligodeoxynucleotides
 inhibition of proliferation, colon adenocarcinoma, 2897

insulin-like growth factor receptor messenger RNA
 transcriptional mechanism, 5997

c-myc
AIDS and non-Hodgkin's lymphoma, 4743

carcinoigen-induced lymphomagenesis
 pim-1 transgenic mice, 958

cell line establishment
 Signet ring cell gastric carcinoma, 381

c-fos and
Bowman-Birk protease inhibitor, irradiated rat colon, 4539

gene-induced alterations
 protein kinase C expression, *myc-ras*
 gene complementation, 5514
independence of activation
 altered HLA class I expression, non-small cell lung cancer, 2463

inhibition by phosphorotioate antisense oligonucleotide
 growth of breast cancer, 3996

modulation of *cis*-Diamminedichloroplatinum(II) resistance
 Friend erythroleukemia cells, 2118

multidifferentiated carcinoma, 3793

secondary DNA fragmentation
 topoisomerase II inhibitors, human tumor cell lines, 6280

transforming growth factor- α and clonal cosegregation of tumorigenicity, liver epithelial cells, 5238

establishment of quiescent state, colon carcinoma cells, 2256

Coagulation
components of fibrinolysis pathways
 neoplastic and nonneoplastic breast tissue, 354

drugs influencing these pathways
 fibronectin-mediated *Bacillus Calmette-Guérin* attachment, bladder mucosa, 3726

fibrinogen deposition
 no thrombin generation, primary breast cancer, 349

Cobalt(II)
-dependent damage by hydrogen peroxide
 DNA bases, human chromatin, 5837

Collagen
-matrix gels containing fibroblasts
 transforming growth factor- β release, gastric carcinoma, 3550

Collagenase
decreased expression of tissue inhibitor metalloproteinases, metastatic tumor cells, 2138

M_r 72,000 type IV
 colonic adenocarcinoma, 439

type IV
 human M_r 72,000 gene, basal promoter in metastatic cell line, 6190

regulation of kinesin expression, prostate tumor cells, 5866

Colon
azoxymethane-induced carcinogenesis
 inhibition by haloperidol, 6150

cytosol
 acetylator genotype-dependent expression, arylamine N-acetyltransferase, 549

growth of dysplastic crypt foci
 dietary carbohydrates, 1,2-dimethylhydrazine, 3721

mucosa
 preneoplastic foci, aberrant crypts, 1564

neoplasia
 β 1-6 branched oligosaccharides, tumor progression, 718

premalignant epithelium
 chemoprevention, dietary dehydroepiandrosterone, 476

proliferating epithelial cells
 histochemical probe, *Amaranthus caudatus* lectin, 657

Colonic neoplasms
calcium and vitamin D, 3069

1,2-dimethylhydrazine-induced K-ras mutations, supplemental calcium and vitamin D deficiency, 4305

facilitation of extracellular matrix invasion
 role of urokinase receptor, 3690

fluorodeoxyuridine-mediated modulation iododeoxyuridine incorporation, 3900

hereditary nonpolyposis
 expression of *DCC* gene, chromosome 18q, 4135

heterogeneity of ornithine decarboxylase mouse colon carcinogenesis, 2069

immunologic quantitation of TIMP-1, 6231

increased levels of 1,2-sn-diacylglycerol, 1571

mucin antigens recognized by monoclonal antibodies, 331

mucins
 accessible sugar epitopes, monoclonal antibody AM-3, 5342

need for end point validation
 putative biomarkers, 6388

normal colon and
 molecular weight of carcinoembryonic antigen, N-glycosylation differences, 5679

plasminogen activation system, 4067

preclinical assessment
 ⁹⁰Y-labeled C110 anticarcinoembryonic antigen immunotoxin, 255

purification of cell growth inhibitor insulin-like growth factor binding protein, 2813

superoxide dismutase
 gene expression, complementary DNA, 939

xenografts
 hyperthermia, ¹¹¹In-labeled hapten to bifunctional antibody, 1515

hypoxic fractions, 5139

inhibition of growth, bombesin/gastrin releasing peptide antagonist, 6006

Colony forming units

SUBJECT INDEX TO VOLUME 51

granulocyte-macrophage
protection of bone marrow by AS101,
purging with ASTA-Z, 5614

Colony-stimulating factor
granulocyte
conjugation to polyethylene glycol,
pharmacokinetics, 3710

granulocyte-macrophage
chemotherapy, ovarian carcinoma, 116
induction of cytokine messenger RNA,
lung cancer, 857
megakaryotypic features, leukemic cell
line establishment, 341

macrophage
biological and antitumor effects, 2649

Colorectal neoplasms
acetylator genotype-dependent expres-
sion
arylamine *N*-acetyltransferase, 549
altered intracellular calcium regulation
"normal" adjacent mucosa, 4492
antitumor immune response and inter-
leukin 2 production
immunization, human monoclonal
anti-idiotypic antibody, 5425

comparison
immunoscintigraphy, computerized to-
mography, 5704

constitutive drug resistance
P-glycoprotein, glutathione-based de-
toxifying enzymes, 2092

p53 gene mutations
familial polyposis coli, 2874

reproductive factors
Chinese females, 2307

stage-specific increases
cathepsin B messenger RNA, 1137

survival
influence, MHC class I and II anti-
gens, 729

TAG-72 epitopes, 5370

Colorimetry
human tumor cell line growth
drug sensitivity, soft agar culture, 1247

Complementation groups
formation of groups 9 and 10
ultraviolet-sensitive mutants, excision
repair, 3965

Computerized tomography
immunoscintigraphy and
comparison, identification of colorectal
cancer, 5704

Confocal microscopy
laser-assisted
subcellular distribution, daunorubicin,
4955

Conjugase: see γ -Glutamyl hydrolase

Copper phthalocyanine cellulose
cytochrome P-450 activation of cigarette
smoke, 5284

CPT-11
antitumor effect
intracellular roles, SN-38, 4187

Cryosurgery
hepatic
colorectal metastases, 6323

Crypts
aberrant
growth, morphological characteristics,
5270

preneoplastic foci, colonic mucosa,
1564

Curcumin
inhibitory effects
lipoxygenase and cyclooxygenase,
mouse epidermis, 813

Cyanomorpholino doxorubicin
broad cross-resistance of ovarian carci-
noma cells
multifactorial mechanisms, 5181

Cyclin B
expression in HeLa cells
 G_2 block, ionizing radiation, 5113

Cycloheximide
cyclic AMP-dependent protein kinase
messenger RNA
normal vs. neoplastic mouse lung epi-
thelial cells, 6699

Cyclooxygenase
inhibitory effects of curcumin
mouse epidermis, 813

Cyclopentanone oxime
oxidative damage to liver
nitroalkanes, 3143

Cyclopentyl cytosine
cellular pharmacology
Molt-4 lymphoblasts, 3733

Cyclophosphamide
cooxidation as alternative pathway
lung toxicity, 542

DNA phosphoester adduct formation,
886

lack of effect on immunogenicity
melanoma antigen vaccine, 3643

-platinum chemotherapy
P-glycoprotein expression, ovary, 5915

single-dose preoperative systemic
prevention, bladder tumor implanta-
tion, 1373, 1378

SR-2508 and
Phase I study, 1099

-treated rats
gonadal protection, fecundity rates,
2124

Cyclosporin A
podophyllotoxin glucoside to etoposide
chemical and biological route, 5

tumor growth
development of cancer cachexia, 880

verapamil and
modulation of multidrug resistance,
human leukemia cell lines, 1749

Cytidine deaminase
sensitivity of erythroleukemia cells
hemin, 1- β -D-arabinofuranosylcyto-
sine, 4535

Cytchalasin B
estimation of proliferative activity, 5134

temporal mapping of differentiation
pathway
murine erythroleukemia cells, 1668

Cytochrome P-450
activation of cigarette smoke, 5284

complementary DNA-expressed
metabolic activation, 4-ipomeanol,
4636

hepatic enzymes
thio-TEPA oxygenation, drug metabo-
lism and clearance, 2340

isozymes
positional specificity, methyl-*n*-amyl-*n*-
trosamine hydroxylation, 1059

-mediated activation and irreversible
binding

tamoxifen, proteins in rat and human
liver, 6052

**quantitation of microsomal α -hydroxyl-
ation**
4-(methylnitrosamo)-1-(3-pyridyl)-1-
butanone, 5495

Cytokeratin
coexpression for myoepithelial and lu-
minal cell lines
spontaneous metastases, rat mammary
adenocarcinoma, 5943

rearrangement and vacuole formation
teleocidin, hepatoma cells, 2677

Cytokines
acivicin-induced monocytoid differentia-
tion
myeloid leukemia cells, 1202

-activated endothelial cells
melanoma cell adhesion, VLA-4
expression, 2239

nitric oxide, lysis of tumor cells, 2531

-activated murine vascular endothelial
cells
lysis, metastatic cells, 245

biological monitoring
low-dose interleukin 2, 6312

consequences of "binding site barrier",
4776

-induced lipogenesis
inhibition of, interleukin 4, 2803

induction of gene expression
flavone acetic acid, mouse splenic leu-
kocytes, 6596

messenger RNA and secretion
alveolar macrophages and blood
monocytes, lung cancer, 857

tumor growth
development of cancer cachexia, 880

Cytomegalovirus
single 3.7-kilobase messenger RNA
hybridization to immediate-early pro-
moter-enhancer, HL-60 and acute
myeloid leukemia, 4724

Cytoplasm
human cells and tissue
human thymidylate synthase, mono-
clonal antibodies, 6668

Cytosol
colon
acetylator genotype-dependent expres-
sion, arylamine *N*-acetyltransferase,
549

Cytotoxic T-lymphocytes
breast adenocarcinoma
recognition, protein core of mucin
molecule, 2908

expression of class I MHC
Epstein-Barr virus-carrying lympho-
blastoid cell lines, Burkitt's lym-
phoma cells, 27

precursor
infiltration and accumulation, progres-
sively growing ocular tumors, 3153

tumor cytosis by lymphocytes
infiltrating ovarian malignant ascites,
4257

D

Dacarbazine
 O^6 -alkylguanine-DNA alkyltransferase
depletion and regeneration, peripheral

SUBJECT INDEX TO VOLUME 51

lymphocytes, 619
Daunorubicin
 -induced cytotoxicity
 antagonistic effect of aclarubicin, small cell lung cancer cells, 5093
 -resistant Ehrlich ascites tumor cells
 decreased DNA topoisomerase II, 4213
 subcellular distribution
 P-glycoprotein-positive and -negative drug-resistant cell lines, 4955
Decay-accelerating factor
 coexistence of autologous antibodies
 human renal tumor cells, 2521
Dehydroepiandrosterone
 dietary
 chemoprevention, tumorigenesis in premalignant colonic epithelium, 476
 inhibition, mammary gland chemical carcinogenesis, 481
 inhibition of protein isoprenylation
 p21^{as} membrane association, colonic adenocarcinoma cells, 6563
 serum levels
 risk, development of bladder cancer, 1366
Dehydroepiandrosterone sulfate
 serum and urinary androgens
 risk of breast cancer, postmenopausal women, 2572
4'-O-Demethyllepidophyllotoxin
 4β-arylamino derivatives
 DNA topoisomerase II, tubulin polymerization and KB cells, 1755
Deoxycorticosterone acetate
 -NaCl hypertensive rats
 gastric carcinogenesis, N-methyl-N'-nitro-N-nitrosoguanidine, 2863
2'-Deoxycytidine
 derivative
 antitumor activity, 2'-deoxy-2'-methylideneцитidine, 2319
Deoxycytidine kinase
 regulation by uridine nucleotides
 human leukemia cells, 2559
 sensitivity of erythroleukemia cells
 hemin, 1-β-D-arabinofuranosylcytosine, 4535
2-Deoxyglucose
 toxicity
 multidrug resistance phenotype, 1638
2'-Deoxy-2'-methylideneцитidine
 antitumor activity, 2319
Deoxyspergualin
 clinical pharmacology
 advanced cancer, 3096
2'-Deoxyuridine-5'-triphosphate
 accumulation
 cell death, thymidylate synthase inhibition, 2346
Desulfatohirudin
 recombinant
 inhibition, murine melanoma experimental metastasis, 4549
Dexamethasone
 -induced metallothionein expression
 suppression, *cis*-diamminedichloroplatinum(II) resistance, 893
 induction of cisplatin resistance
 c-Ha-ras oncogene, mouse NIH 3T3 cells, 5903

lymphocytes, 619
Daunorubicin
 -induced cytotoxicity
 antagonistic effect of aclarubicin, small cell lung cancer cells, 5093
 -resistant Ehrlich ascites tumor cells
 decreased DNA topoisomerase II, 4213
 subcellular distribution
 P-glycoprotein-positive and -negative drug-resistant cell lines, 4955
Decay-accelerating factor
 coexistence of autologous antibodies
 human renal tumor cells, 2521
Dehydroepiandrosterone
 dietary
 chemoprevention, tumorigenesis in premalignant colonic epithelium, 476
 inhibition, mammary gland chemical carcinogenesis, 481
 inhibition of protein isoprenylation
 p21^{as} membrane association, colonic adenocarcinoma cells, 6563
 serum levels
 risk, development of bladder cancer, 1366
Dehydroepiandrosterone sulfate
 serum and urinary androgens
 risk of breast cancer, postmenopausal women, 2572
4'-O-Demethyllepidophyllotoxin
 4β-arylamino derivatives
 DNA topoisomerase II, tubulin polymerization and KB cells, 1755
Deoxycorticosterone acetate
 -NaCl hypertensive rats
 gastric carcinogenesis, N-methyl-N'-nitro-N-nitrosoguanidine, 2863
2'-Deoxycytidine
 derivative
 antitumor activity, 2'-deoxy-2'-methylideneцитidine, 2319
Deoxycytidine kinase
 regulation by uridine nucleotides
 human leukemia cells, 2559
 sensitivity of erythroleukemia cells
 hemin, 1-β-D-arabinofuranosylcytosine, 4535
2-Deoxyglucose
 toxicity
 multidrug resistance phenotype, 1638
2'-Deoxy-2'-methylideneцитidine
 antitumor activity, 2319
Deoxyspergualin
 clinical pharmacology
 advanced cancer, 3096
2'-Deoxyuridine-5'-triphosphate
 accumulation
 cell death, thymidylate synthase inhibition, 2346
Desulfatohirudin
 recombinant
 inhibition, murine melanoma experimental metastasis, 4549
Dexamethasone
 -induced metallothionein expression
 suppression, *cis*-diamminedichloroplatinum(II) resistance, 893
 induction of cisplatin resistance
 c-Ha-ras oncogene, mouse NIH 3T3 cells, 5903
Dextran sulfate
 interleukin 2-induced leukocyte adhesion
 normal and tumor microvascular endothelium, 1561
N-(5,5-Diacetoxypentyl)doxorubicin
 DNA interstrand cross-linking
 rapid endonucleolytic cleavage, human leukemic cells, 6704
1,2-sn-Diacylglycerol
 increased levels in human colon tumors, 1571
Diallyl sulfide
 metabolism of carcinogenic nitrosamines
 nasal mucosa, 1509
cis-Diammine-1,1-cyclobutane dicarboxylato platinum(II)
 -induced DNA interstrand cross-link removal
 hydroxyurea, 1-β-D-arabinofuranosylcytosine, 1984
cis-Diamminedichloroplatinum(II)
 accumulation of
 Na⁺, K⁺-adenosine triphosphatase, ovarian carcinoma, 3677
 cellular sensitization
 lyngbyatoxin A analogues, 2511
 combined with trimetrexate
 pharmacokinetic study, 3080
 -containing chemotherapy
 tumor-infiltrating lymphocytes, epithelial ovarian cancer, 1934
 detection of DNA modifications
 monoclonal antibody, 123
DNA excision repair in cell extracts
 hypersensitivity, 3384
 enhanced cytotoxicity
 monoclonal antibody against c-erbB-2 protein, breast and ovarian tumor cell lines, 4575
estrogen receptor-binding platinum complex
 breast cancer, 3217
 host cell reactivation
 damaged plasmid DNA, 601
4-hydroperoxycyclophosphamide and role of glutathione in synergism, leukemia cell lines, 2536
 hyperthermia and
 radiation, mammary carcinoma, 707
 induction of resistance
 c-Ha-ras, mouse NIH 3T3 cells, 5903
 ionizing radiation and
 resistance patterns, 4523
 malignant behavior and resistance
 ovarian carcinoma xenografts, different disease stages, 6358
 modulation of resistance by c-myc
 Friend erythroleukemia cells, 2118
 morphological and phenotypic analysis
 Walker 256 cells, 1334
 sensitivity
 formation and removal of platinum-DNA adducts, ovarian carcinoma, 4557
 single step selection of resistant mutants
 human ovarian carcinoma cell line, 2242
 suppression of dexamethasone-induced metallothionein, 893
cis-Diammine(glycolato)platinum
 Phase I study and pharmacological analysis, 1472
Diarylsulfonylurea
 mitochondrial structure and functions, 6286
Diaziquone
 DNA adducts, 5198
Didutyryl cyclic adenosine 3':5'-monophosphate
 retinoic acid and
 differentiation of neuroblastoma, interferon, 3958
5,6-Dichloro-1-β-ribofuranosyl-benzimidazole
 cyclic AMP-dependent protein kinase messenger RNA
 normal vs. neoplastic mouse lung epithelial cells, 6699
(6R)-5,10-Dideaza-5,6,7,8-tetrahydrofolic acid
 nucleotide metabolism
 CCRF-CEM cells, 2291
Diepoxybutane
 induced chromosome damage
 individual susceptibility, genotoxic exposures, 5266
Diet
 ω-3 and ω-6 fatty acids
 initiation and promotion, stages of colon carcinogenesis, 487
 calorie restriction and
 skin carcinogenesis, Sencar mouse model, 1851
 cancer prevention, 5080s
 carbohydrates
 growth of dysplastic crypt foci, colon, 3721
 concentration-dependent increase
 P388 and B16 doubling time, acyclic monoterpane geraniol, 37
dehydroepiandrosterone
 chemoprevention, tumorigenesis in premalignant colonic epithelium, 476
 inhibition, mammary gland chemical carcinogenesis, 481
 high- or low-fat
 indomethacin and tumorigenesis, mammary carcinoma, 2683
 low-protein
 gastric carcinogenesis, N-methyl-N'-nitro-N-nitrosoguanidine, 3493
 modulation
 proviral expression, 5123
 need for end point validation
 putative biomarkers, colon cancer, 6388
Dietary fat
 patterns of prostatic cancer
 N-nitrosobis(2-oxopropyl)amine, testosterone, 4757
 phorbol ester-elicited tumor promotion
 mouse skin, 907
Diethylnitrosamine
 histochemical profile
 hepatocellular adenoma, carcinoma, 1952
 -induced carcinogenesis
 strain-specific sensitivity, hepatocytes, 3257
Diethylstilbestrol
 carcinogenicity
 postnatal oral contraceptive steroids, Wistar rat, 3311

SUBJECT INDEX TO VOLUME 51

- treated Syrian hamsters
elevated 8-hydroxydeoxyguanosine levels, 3882
- 2',2'-Difluorodeoxycytidine:** see Gemcitabine
- α-Difluoromethylornithine**
chemoprevention of colon carcinogenesis, 4528
- Dihydropyridine**
derivative B859-35
inhibition of cell proliferation, 5821
- Dihydrotestosterone**
androgen and EM-170
estradiol-stimulated growth, breast tumors in athymic mice, 3131
serum and urinary androgens
risk of breast cancer, postmenopausal women, 2572
- 5α-Dihydrotestosterone**
antiestrogen and
inhibition of cell cycle kinetics, breast cancer, 2797
- 7β,8α-Dihydroxy-9α,10α-epoxy-7,8,9,10-tetrahydrobenzo(a)pyrene**
mutations in XP12BE cells
HPRT gene, 2587
- trans-7,8-Dihydroxy-anti-9,10-epoxy-7,8,9,10-tetrahydrobenzo(a)pyrene**
adducts to guanine-*N*²
duplex dodecamer, 3482
- 1,25-Dihydroxyvitamin D₃**
platinum drugs and
growth of MCF-7 cells, 2848
potentiation of 1-β-D-arabinofuranosyl-cytosine cytotoxicity
HL-60 cells, 3451
- receptor in breast cancer
prognosis, 239
- receptors and sex steroids
human colorectal adenocarcinoma,
normal mucosa, 1227
- receptors in human carcinomas, 2021
- 1α,25-Dihydroxyvitamin D₃**
synthesis and secretion of nonphosphorylated osteopontin
mouse JB6 epidermal cells, 2144
- 3,2'-Dimethyl-4-aminobiphenyl**
testosterone propionate and
invasive carcinoma, accessory sex organs, 1264
- Dimethylbenz(a)anthracene**
conjugated dienoic derivative of linoleic acid
mammary cancer prevention, 6118
- 7,12-Dimethylbenz(a)anthracene**
hepatic metabolism, 492
-induced mammary tumors
DNA adducts, inhibition by dietary selenite, 4613
indomethacin and tumorigenesis, high- or low-fat diet, 2683
promoting effect of snuff, 4388
role of ultraviolet radiation
melanocytic tumors, hairless mice, 4964
- 1,2-Dimethylhydrazine**
growth of dysplastic crypt foci in colon
effect of dietary carbohydrates, 3721
-induced colonic carcinogenesis
modulation, dietary calcium and vitamin D, 5608
-induced colonic tumors
- K-ras mutations, dietary calcium and vitamin D deficiency, 4305
- N,N-Dimethyl sphingosine derivatives**
cell membrane signaling
target in cancer therapy, 1613
- 2,4-Dinitrophenol**
novobiocin and
modulation, amsacrine-induced DNA lesions, 573
- sn-1,2-Dioctanoylglycerol**
12-O-tetradecanoylphorbol-13-acetate and
phosphorylation, protein kinase C, 4624
- Diol-epoxides**
fjord- and bay-region
stability, SOS induction in *Escherichia coli*, 1659
- Diphtheria**
toxin A-chain coding sequence
immunoglobulin genes, toxicity to B-lymphoid cells, 4299
- Distamycin**
derivative FCE 24517
selective DNA interaction, 199
- 2,6-Dithiopurine**
thiopurinol and
inhibition of binding, benzo(a)pyrene diol epoxide to DNA in epidermis, 4859
- DNA**
alkylation
metabolic activation, 4-(methylnitrosamo)-1-(3-pyridyl)-1-butanol, 4798
- amplification and rearrangement
neuroblastoma, N-myc gene region, 1946
- amplification in tumors and cell lines by *myc* family
combination chemotherapy regimens, small cell lung cancer, 1708
- amsacrine-induced lesions
modulation, novobiocin and 2,4-dinitrophenol, 573
- aneuploidy
Astler-Coller Dukes stage C colonic adenocarcinoma, 2403
- binding of progesterone receptor R5020 and RU486, 3938
- carmethizole
in vivo and *in vitro* evaluation, 4581
- cellular
interaction, thioTEPA and TEPA, 4360
- N-(2-chloroethyl)-N'-cyclohexyl-N-nitrosourea-modified**
release of 7-alkylguanines, 3-methyladenine DNA glycosylase II, 499
- chloroethylnitrosourea-sensitive Chinese hamster cell lines, 195
- cross-links
sensitivity to nitrogen mustard, Burkitt's lymphoma, 6550
- cis-Diammine-1,1-cyclobutane dicarboxylato platinum(II)**
inhibition of cross-link removal, hydroxyurea and 1-β-D-arabinofuranosylcytosine, 1984
- damage and differential cytotoxicity
human carcinoma cells, 6586
- DNA cross-link at unique plasmid location
- human shuttle vector, single nitrogen mustard interstrand, 2268
- down-regulation of cdc2
senescent human and hamster cells, 6010
- elevated 8-hydroxydeoxyguanosine levels
diethylstilbestrol-treated Syrian hamsters, 3882
- excision repair
formation of complementation groups 9 and 10, ultraviolet-sensitive mutants, 3965
- excision repair in cell extracts
hypersensitivity, DNA-damaging agents, 3384
- extrachromosomally amplified genes from tumor cells
acceleration of loss, hydroxyurea, 6273
- fragmentation
1-β-D-arabinofuranosylcytosine, myeloid leukemia, 741
- heterogeneous repair
methylnitrosourea-induced alkali-labile sites, 775
- HLA class I and II antigens**
bronchogenic carcinoma, 4948
- identification of nuclear matrix proteins
cancer and normal rat prostate, 6514
- index of solid tumor tissue
modal chromosome number, non-small cell lung carcinoma, 3267
- induction of synthesis
rat liver tumor promoters, human hepatocyte primary cultures, 1143
- intercalating drugs
modulation of effects, caffeine, 3682
- interstrand cross-linking
N-(5,5-diacetoxypentyl)doxorubicin, human leukemia cells, 6704
- Kiel classification**
t(14;18) major breakpoint regions, non-Hodgkin's lymphoma, 3243
- major alterations in nucleotide structure
cancer of female breast, 5430
- mechanistic studies
trisubstituted platinum(II) antitumor agents, 1866
- nickel(II)- and cobalt(II)-dependent damage
hydrogen peroxide, human chromatin, 5837
- nuclear
degradation, S phase of HL-60 cells, 1165
- origin and development of cancer
cellular adaptation, 2751
- oxidative damage by nitroalkanes
liver, 3143
- oxidized bases
formation of, tumor promoter-treated mouse skin, 4443
- papillomavirus**
anal intraepithelial neoplasia, anal cancer, 1014
- patterns of methylation
human lymphoma and leukemia cell lines, 3702
- phosphoester adduct formation
cyclophosphamide, 886
- plasmid

SUBJECT INDEX TO VOLUME 51

host cell reactivation, HeLa cells, 601
 ploidy
 image analysis, individual foci of prostate cancer, 4084
 ras p21 expression, lung cancer, 6346
 ploidy index and *N-myc* genomic content
 neuroblastoma, 33
 quantitation of microsomal α -hydroxyl-
 ation
 4-(methylnitrosamino)-1-(3-pyridyl)-1-
 butanone, 5495
 replication intermediates
 vitamin D, HL-60 cells, 3451
 secondary fragmentation
 topoisomerase II inhibitors, human tumor cell lines, 6280
 selective interaction
 distamycin derivative FCE 24517, 199
 sequence specificity
 doxorubicin-induced mutational damage, *uvrB-Escherichia coli*, 3930
 silver-stained nucleolar organizer regions
 norethindrone, Ishikawa cells, 5987
 single-strand breaks
 4-(methylnitrosamino)-1-(3-pyridyl)-1-
 butanone, vitamin A, 3846
 spontaneously occurring non-liver tumors
 activation, protooncogenes, 1148
 strand-breaks and related processes
 ascorbic acid, 6-hydroxydopamine and hydrogen peroxide effects, 6060
 supercoiled
 ionizing radiation, interaction within human cells, 3857
 synthesis
 action of 2',2'-difluorodeoxycytidine, 6110
 target site
 binding analysis of estrogen receptor, breast cancer, 3405
 variability of 5-bromo-2'-deoxyuridine incorporation
 fluoropyrimidine modulation, glioma, 870
DNA, complementary
 colon cancer manganese superoxide dismutase
 gene expression, human cells, 939
 -expressed human cytochromes P-450
 metabolic activation, 4-ipomeanol, 4636
 folate-binding protein
 marker for ovarian cancer, 5329
 glial fibrillary acidic protein
 glioma cell lines, 1553
 laminin receptor
 synthetic peptide, inhibition of cancer cell attachment, 5672
 $\text{nm}23-\text{H}2$ gene, 445
DNA adducts
 aflatoxin B₁
 immunofluorescence, woodchuck hepatocytes and rat liver, 1720
 4-aminobiphenyl-hemoglobin
 measurement of, lung cancer, 5219
 2-amino-3-methylimidazo[4,5-f]quinoline formation and persistence, 5636
 antitumor agent diaziquone, 5198
 benz[a]aceanthrylene and metabolites C3H10T½ cells, 6163
 detection with monoclonal antibody

cisplatin and carboplatin, 123
trans-7,8-dihydroxy-anti-9,10-epoxy-7,8,
 9,10-tetrahydrobenz(a)pyrene
 guanine N⁷, duplex dodecamer, 3482
 7,12-dimethylbenz(a)anthracene-induced
 mammary tumors
 inhibition by dietary selenite, 4613
 formation after 4-aminobiphenyl frequency of urination, 4371
 O^6 -methylguanine
 enhanced repair in liver, *ada* gene, 3391
 nucleic acid
 stereoselective formation, 2,3-epoxy-4-
 hydroxynonalan, 137
 platinum
 cisplatin sensitivity, ovarian carcinoma, 4557
 psoralen photoadducts
 differential introduction and repair, specific human genes, 2867
DNA damage
 AIDS and non-Hodgkin's lymphoma, 4743
 cell death following thymidylate synthase inhibition
 2'-deoxyuridine-5'-triphosphate, 2346
 cellular response
 participation of p53 protein, 6304
 $7\beta,8\alpha$ -dihydroxy-9 α ,10 α -epoxy-7,8,9,10-tetrahydro benzo(a)pyrene mutations
 HPRT gene, XP12BE cells, 2587
 double-strand breaks
 measurement in individual cells, gel electrophoresis, 4671
 from gene to carcinogen
 rapid evolution, field of molecular epidemiology, 3617
 modulation of *cis*-diamminedichloroplatinum(II) resistance
 c-myc, Friend erythroleukemia cells, 2118
 193-nm radiation in mammalian cells, 288
 non-P-glycoprotein-mediated multidrug resistance
 small cell lung cancer, 3345
 platinum/titanium/ruthenium complexes
 ovarian tumor cells, 2943
DNA polymerase
 inhibition of human ribonucleotide reductase
 2-chloro-9-(2-deoxy-2-fluoro- β -D-arabinofuranosyl)adenine, 2386
DNA polymerase- α
 SV40 T antigen
 posttranscriptional regulation, proliferating cell nuclear antigen, 1465
DNA polymerase chain reaction
 multiple K-ras codon 12 mutations
 cholangiocarcinoma, 3497
DNA repair
 different phenotypes
 N-ethyl-N-nitrosourea-induced toxicity and mutation, human cells, 5188
 field-test validation of assay
 circulating human lymphocytes, 5786
 ionizing radiation and topotecan synergistic cell killing, 5813
 N-methyl-N-nitrosourea-induced mutations

shuttle vector plasmid, *O⁶-methylguanine-DNA methyltransferase-deficient* cells, 6219
 postreplication
 anchorage independence, transformed fibroblasts, 2960
 xeroderma pigmentosum
 patients from Germany, 3456
DNA topoisomerase II
 antagonistic effect of aclarubicin
 daunorubicin-induced cytotoxicity, small cell lung cancer cells, 5093
 4β -arylamino derivatives
 4'-O-demethyllepidophyllotoxin, tubulin polymerization and KB cells, 1755
 attenuated content correlation to low drug resistance
 Chinese hamster ovary cells, 6543
 daunorubicin-resistant Ehrlich ascites tumor cells, , 4213
 -directed chemotherapeutic agents
 camptothecin, human leukemia cell line, 1129
 heat-stable cleavable complex
 nonintercalative terpenoids, 2922
 increased phosphorylation
 etoposide-resistant mutants, human cancer KB cells, 3951
 inhibition by bis(2,6-dioxopiperazine) derivatives, 4903, 4909
 inhibitors
 secondary DNA fragmentation, human tumor cell lines, 6280
 levels and chemosensitivity
 human tumor cell lines, 6592
 levels during granulocytic maturation, 3534
 non-P-glycoprotein-mediated multidrug resistance
 small cell lung cancer, 3345
 point mutation in gene
 amsacrine resistance, leukemia cell line, 4729
 -reactive chemotherapeutic drugs
 induction of apoptosis, thymocytes, 1078
DNA topoisomerases
 inhibitors
 in vitro differentiation, embryonal carcinoma, 5398
 ionizing radiation and pazelliptine additive and supraadditive interaction, 3204
 ionizing radiation and topotecan synergistic cell killing, 5813
 P-glycoprotein expression
 platinum/cyclophosphamide chemotherapy, benign and malignant ovarian tumors, 5915
Dopamine
 azoxymethane-induced colon carcinogenesis
 inhibition by haloperidol, 6150
Dormancy
 cancer
 murine BCL₁ lymphoma, 5045s
Dosimetry
 antibodies labeled with ^{131}I
 infusion, biodistribution, 5921
 protection by Oltipaz
 aflatoxin B₁-induced hepatocarcinogene-

SUBJECT INDEX TO VOLUME 51

nesis, 5501
Doxorubicin
 analogue and
 modulation of effects by caffeine, 3682
 -induced inhibition of cell survival
 ethanol potentiation, Chinese hamster
 ovary cells, 2036
 -induced mutational damage in *uvrB*
 Escherichia coli
 DNA sequence specificity, 3930
inherent resistance
 increased glutathione peroxidase, sarcoma, 521
verapamil
 buthionine sulfoximine effect, multidrug resistant cells, 67
Drug resistance: *see also Multidrug resistance*
 broad cross-resistance of ovarian carcinoma cells
 multifactorial mechanisms, cyanomorpholino doxorubicin, 5181
constitutive
 P-glycoprotein, human colorectal tumors, 2092
hypomethylation and reactivation
 asparagine synthetase gene, L-asparaginase and ethyl methanesulfonate, 985
intercellular transfer, 1190
 low level
 attenuated topoisomerase II content, Chinese hamster ovary cells, 6543
metabolic inactivation
 bleomycin, 227
P-glycoprotein expression and DNA topoisomerases
 platinum/cyclophosphamide chemotherapy, ovary, 5915
rat mammary carcinoma model, 1434
resistance patterns
 cis-diamminedichloroplatinum(II), ionizing radiation, 4523
response durations and resistant disease mathematical model, 1210
DT-diaphorase
deficiency
 Mitomycin C-resistant CHO cells, aerobic conditions, 1860
Dyes
 fluorescent
 characterization, multidrug resistance, 4665

E

Eicosapentaenoic acid
 antithrombotic and antitumor effect
 protein turnover, 6089
Electron spin resonance
 mechanism
 Adriamycin-induced heart mitochondrial damages, 3555
Electrophoresis
 gel
 measurement in individual cells, DNA double-strand breaks, 4671
Ellagic acid
 chemoprevention of colon carcinogenesis, 4528
Ellipticine
 modulation of effects by caffeine, 3682

EM-139
 biphasic action of androgens
 human prostatic cancer cells, 5165
 inhibition of cell cycle kinetics and proliferation
 breast cancer, 2797
EM-170
 androgen and
 estradiol-stimulated growth, breast tumors in athymic mice, 3131
Embryo cells
 Syrian hamster
 immortalization, multistep event, 1177
EMT6 cells
 modulation of tumor cell membrane permeability
 multiparametric flow cytometry, 799
Endocytosis
 immunotoxin-791T/36-RTA
 tumor cells, relation to cytotoxic action, 1990
Endometrial neoplasms
 expression of CAR-3 and TAG-72 macromolecules
 diagnosis, postmenopausal patients, 3001
obesity and body fat distribution, 568
Endothelial cells
 autocrine effects of fibroblast growth factor
 repair, radiation damage, 2552
brain
 chondroitin sulfate proteoglycan expression, malignant phenotype of astroglial cells, 4986
chemotaxis and invasiveness
 supernatants, AIDS-related Kaposi's sarcoma, 2670
cytokine-activated
 melanoma cell adhesion, VLA-4 expression, 2239
 nitric oxide, lysis of tumor cells, 2531
growth
 carcinoid cell production, paracrine growth factors, 5253
inhibition of tumor invasion
 smooth muscle cell layers, metalloproteinase inhibitor, 2151
-melanoma interactions
 tumor-derived interleukin 1, 4768
membrane vesicles
 study of organ preference, metastasis, 394
photosensitized release
 von Willebrand factor, 3261
plasminogen activation system
 human colon cancer, 4067
suppression of solid tumor growth
 immunoneutralizing monoclonal antibody, basic fibroblast growth factor, 6180
vascular
 cytokine activation, lysis of metastatic tumor cells, 245
Endothelium
 inhibition of cancer cell attachment peptide G, 5672
 normal and tumor microvascular interleukin 2-induced leukocyte adhesion, dextran sulfate, 1561
Endotoxins
 Phase I trial of *Salmonella abortus equi*

cancer patients, 2524
Energy expenditure
 metabolism in small cell lung cancer, 5160
resting
 effect, different tumor types, 6027
Epidermal cells
 arachidonate release
 4 β - and 4- α -12-O-tetradecanoylphorbol-13-acetate, 850
 calcitrol induction
 nonphosphorylated osteopontin, 2144
tumor progression
 12-O-tetradecanoylphorbol-13-acetate or retinoic acid, 4701
Epidermal growth factor
 cellular growth response
 colon carcinoma, familial adenomatous polyposis, 1452
cripto gene
 transformation, mammary epithelial cells, 1051
effect of urine
 clonal growth, bladder cancer cell lines, 4631
expression in human gliomas, 2164
insulin-like growth factor-I receptors and autoactive stimulation, esophageal carcinoma, 1898
modification of growth rates
 hypoxic fractions, xenografted A431 tumors, 4111
phorbol esters and
 progression of G₂ phase, mitosis of HeLa cells, 4328
receptor pathway
 squamous carcinoma, associated paraneoplastic syndromes, 2438
**transforming growth factor- α and differential binding, human pancreatic cancer cell line, 6243
urinary
 tumor-promoting effect, rat bladder carcinogenesis, 5487
Epidermal neoplasia
 regulation of intracellular calcium normal and neoplastic keratinocytes, 4206
Epidermis
 inhibition by 2,6-dithiopurine and thiopurinol
 benzene(a)pyrene diol epoxide binding to DNA, 4859
inhibitory effects of curcumin
 lipoxygenase and cyclooxygenase activities, 813
tumor promoter-induced ornithine decarboxylase activity
 tannic acid, other polyphenols, 2820
Epidermoid neoplasms
 upregulation of epidermal growth factor receptor
 α -interferon, 1294
Epiglycanin
 specific immunosuppressive activity, 1170
Epithelial cells
 bronchial
 immortalization, human papillomaviruses 16 or 18, 5370
 transformation by c-raf-1 and c-myc, lung carcinogenesis, 3793**

SUBJECT INDEX TO VOLUME 51

coexpression of cytokeratins
myoepithelial and luminal cell lines,
rat mammary adenocarcinoma, 5943

ectocervical
retinoid regulation, papillomavirus
type 16, 3982

frequent induction of mammary carcinoma
neu oncogene transfer, 5649

growth factor messenger RNA expression
human breast fibroblasts, benign and malignant lesions, 4978

isolation of two cell lines
single feline mammary carcinoma, heterogeneity, 4028

liver
clonal cosegregation of tumorigenicity, *c-myc* and transforming growth factor- α , 5238
resistance to growth inhibitory effects, transforming growth factor- β 1, 5929

lung
behavior of asbestos fibers, 4942
cyclic AMP-dependent protein kinase messenger RNA, 6699

mammary
carcinoma induction, *in situ* transfer of *v-Ha-ras*, 2642
v-H-ras oncogene transfer, mammary carcinoma suppressor gene, 5298

murine
anchorage-independent growth, transforming growth factor- β , 5898

ovarian
development of monoclonal antibodies, reactivity to surface antigen, 4012

regulation of growth
nerve growth factor-like protein, human prostate, 3304

tumor cell motility
stimulation, tumor necrosis factor, 5315

Epithelium
Barrett's
p53 gene mutations, esophageal cancer, 4495
normal bronchial
lung cancer and, cytogenetics and growth factors, 400

Epitopes
mapping
synthetic polypeptide domains, carcinobryton antigen, 1876

2,3-Epoxy-4-hydroxynonanal
stereoselective formation
nucleic acid adducts, 137

Epstein-Barr virus
AIDS and non-Hodgkin's lymphoma, 4743
 γ -carrying lymphoblastoid cell lines
expression of class I MHC, 27
 γ -negative diffuse large cell lymphoma
cell line establishment, 8;22 chromosomal translocation, 5392

Erythroid differentiation factor
inhibition of P-glycoprotein expression
K562 cells, 2582

Erythroleukemia cells
induction of differentiation
genistein, 764

sensitivity to 1- β -D-arabinofuranosylcytosine
hemin, deoxycytidine kinase, 4535

Erythropoietin
megakaryocytic features
leukemic cell line establishment, 341

Escherichia coli
doxorubicin-induced mutational damage
DNA sequence specificity, 3930
recombinant membrane-acting immunotoxin, 465

SOS induction
stability, fjord- and bay-region diol-epoxides, 1659

Esophageal neoplasms
chronic ingestion of NDEA or NDMA
detailed dose-response study, 6415
frequent loss of heterozygosity
retinoblastoma locus, 5766
genetic analysis
high incidence geographic areas, 4102
p53 gene mutations
Barrett's epithelium, 4495

Squamous carcinoma
significance, *int-2/hst-1* coamplification, 1504

Esophagus
epithelial cells
immortalization, SV40 T-antigen, 365
inhibitory effects of phenethyl isothiocyanate
N-nitrosobenzylmethylamine carcinogenesis, 2063

Liver and
tumor induction, dose and time relationships, 6452

Esterase
breast cyst fluid
purification and properties, 1092

Estradiol
receptor-positive primary breast cancers
epidermal growth factor receptor-negative tumors, 4544
-stimulated growth
androgen and EM-170, breast tumors in athymic mice, 3131
interleukin 1 α , MCF-7 cells, 1488

Estrogen ablation
MCF-7 cells, programmed cell death, 162
-induced tumors
early kidney lesions, 1922
inhibition by leukotrienes
murine transformed Leydig cell proliferation, 5573

natural history
Sinclair swine cutaneous melanoma, 2025

2,3,7,8-tetrachlorodibenzo-*p*-dioxin-mediated increases
cell proliferation, rat hepatocarcinogenesis, 1391

Etanidazole
modulation of alkylating agents
fibrosarcoma, mammary carcinoma, 1086

Ethacrynic acid
combined with thiotepa
Phase I study, 6059

sensitization of melanoma cells
cytotoxic effect, melphalan, 94

Ethanol
potentiation of doxorubicin-induced inhibition
cell survival, Chinese hamster ovary cells, 2036

Ether lipid
modulation of tumor cell membrane permeability
multiparametric flow cytometry, EMT6 cells and HL-60 cells, 799

Ethyl methanesulfonate
hypomethylation and reactivation
asparagine synthetase gene, 985

N-Ethyl-N-nitrosourea
-induced toxicity and mutation
human cells, 5188

Ethyl phenylpropionate
tumor-promoting activity, 5642

Etoposide
from podophyllotoxin glucoside
chemical and biological route, 5
interleukin 1 receptor and interleukin 1 α melanoma cells, 769
intraperitoneal
Phase I pharmacokinetic study, 2041
-resistant mutants of human cancer KB cells
increased phosphorylation, DNA topoisomerase II, 3951

Teniposide and
mechanisms of resistance, colon and lung carcinoma, 5275

Extracellular matrix
androgen receptor expression and transformation, prostate fibroblasts, 1910
cancer cell-mediated degradation
tumor-associated trypsin, 2107
invasion by colon cancer
role of urokinase receptor, 3690
neural rosette formation
within *in vitro* spheroids, teratocarcinoma cell line, 2655
papillomavirus type 16-transformed keratinocytes, 5967
patterns of differentiation
human endometrial carcinoma, 5661
tumor invasion and metastasis
positive and negative regulation, 5054s

Eye
intraocular tumor formation
RB reconstituted retinoblastoma cells, 4481
intraocular tumor suppression
RB-reconstituted retinoblastoma cells, 6381
progressively growing ocular tumors
infiltration and accumulation, precursor CTL, 3153
ultraviolet radiation-induced tumors, in *Monodelphis domestica*, photoreactivation, 6539

F

Fab
portion of myeloma IgG
sugar chains, antibody-lectin enzyme immunoassay, 5888

F(ab')₂ fragments
targeted T-cell antitumor responses
human ovarian carcinoma, 5716

SUBJECT INDEX TO VOLUME 51

F-actin
 cellular levels
 marker for cellular transformation, bladder cancer risk, 2762

Factor VIII
 -like domains
 M, 46,000 human milk fat globule protein, breast tumors, 4994

Familial adenomatous polyposis
 cellular growth response
 epidermal growth factor, 1452

Familial multiple endocrine neoplasia type 1
 allelic loss, chromosome 11, 1154

Familial polyposis coli
 p53 gene mutations
 colorectal tumors, 2874

Fatty acids
 ω-3 and ω-6
 dietary effects, stages of colon carcinogenesis, 487

conjugated dienoic derivative of linoleic acid
 mammary cancer prevention, 6118

cytotoxic effect of *cis*-parinaric acid cultured malignant cells, 6144

lipid peroxidation
 enrichment *in vitro* with arachidonic acid, hepatoma cells, 4603

long-chain
 inhibition of glucuronidation, benzo(a)pyrene phenols, 4511

Fazarabine
 Phase I clinical trial, 1105

FCE 24517
 selective DNA interaction, 199

F9 cells
 induction of *in vitro* differentiation inhibitors of topoisomerases, 5398

Ferritin
 DNA strand-breaks and related processes
 6-hydroxydopamine and hydrogen peroxide, neuroblastoma cell line, 6060

models to predict outcome
 childhood neuroblastoma, 1426

α-Fetoprotein
 multiple RNAs
 adult rat liver, 4656

Fetus
 localization
 parathyroid hormone-like peptide, 6351

Fibrinogen
 deposition without thrombin generation primary breast cancer tissue, 349

Fibrinolysis pathways
 neoplastic and nonneoplastic breast tissue, 354

Fibroblast growth factor
 acidic and basic
 presence in glioblastoma multiforme, 5760

autocrine effects
 repair of radiation damage, endothelial cells, 2552

basic
 suppression of solid tumor growth, immunoneutralizing monoclonal antibody, 6180

transforming growth factor- β_1 and, localization in human mammary gland, 4685

growth factors in hormone-related tumors, 4114

-induced proliferation
 thyroid hormone, Shionogi carcinoma 115 mammary carcinoma cells, 4323

Fibroblasts
 bone
 prostate cancer growth acceleration, 3753

breast
 growth factor mRNA expression, benign and malignant lesions, 4978

cell growth
 carcinoid cell production, paracrine growth factors, 5253

contraction of collagen-matrix gels
 transforming growth factor- β release, gastric carcinoma, 3550

ionizing radiation and pazelliptine additive and supraadditive interaction, 3204

malignant transformation
 increased activity, receptor-bound plasminogen activator, 1221

oncogene-transformed
 growth inhibition, cocultured normal cells, 5348

transformation, natural killer target molecules, 4250

prostate
 transformation, extracellular matrix and androgen receptor expression, 1910

proteolytic activity
 inhibition by Bowman-Birk protease inhibitor, 5359

ras-transformed
 Thy-1 as negative growth regulator, 99

sensitivity to cytotoxic agents
 increases in tumorigenicity, 1855

transformation
 role of postreplication repair, anchorage independence, 2960

tumor progression
 hypomethylating drug, 324

Fibronectin
 -mediated *Bacillus Calmette-Guérin* attachment
 bladder mucosa, drugs influencing coagulation pathway, 3726

modulation of tenascin expression lung tumors, 4876

Fibrosarcoma
 action of partially purified bacteriocin, 1359

dbl protooncogene
 preferential expression, 4234

modulation of alkylating agents etanidazole, flusol-DA/carbogen, 1086

¹⁴N nuclear magnetic resonance spectroscopy, 3378

Fibrosarcoma-1
 radiation-induced tumor metabolism and blood flow
 glucose and mannitol effects, nuclear magnetic resonance, 3108

Fibrosis
 systemic

transforming growth factor- β_1 , nude mice, 3590

Fine-needle aspiration
 estrogen and progesterone receptors normal female breast, 1817

Flavin
 -containing monooxygenase P-450-catalyzed binding of tamoxifen to proteins, 6052

Flavone acetic acid
 cytokine gene expression mouse splenic leukocytes, 6596

Flavone-8-acetic acid
 analogues and antitumor effect, plasma nitrate concentrations, 77

Flow cytometry
 DNA ploidy and *ras* p21 expression lung cancer, 6346

influence of glutathione S-transferases cellular glutathione determination, monochlorobimane, 1783

modulation of tumor cell membrane permeability ether lipid, EMT6 cells and HL-60 cells, 799

Fludarabine triphosphate
 inhibition of primer RNA formation CCRF-CEM leukemia cells, 1829

Fluorine-18
 progestin receptor positive tumors positron emission tomography, 1930

16α-Fluoro-5-androsten-17-one
 chemoprevention of colon carcinogenesis, 4528

Fluorodeoxyuridine
 -mediated modulation of iododeoxyuridine incorporation radiosensitization, colon cancer cells, 3900

5-Fluoro-2'-deoxyuridine
 diastereoisomers of 5-formyltetrahydrofolate cellular growth, sensitivity, 3476

Fluoropyrimidines
 biochemical modulation folytpolyglutamates, leucovorin, 789

5-bromo-2'-deoxyuridine incorporation into DNA glioma cell lines, 870

schedule-dependent enhancement of cytotoxicity folinic acid, carcinoma cells, 4618

5-Fluorouracil
 high-dose oral leucovorin and children with refractory cancer, 4871

interferon-blocked cell-mediated cytotoxicity melanoma, 3159

intratumoral metabolism ¹⁹F nuclear magnetic resonance spectroscopy, 5821

pharmacokinetics, ¹⁹F nuclear magnetic resonance spectroscopy, 5806

liver perfusion and hepatic artery infusion, 1694

metabolism in RIF-1 tumors and liver ¹⁹F magnetic resonance spectroscopy, 1384

uptake pH dependence, ³¹P and ¹⁹F nuclear magnetic resonance spectroscopy,

SUBJECT INDEX TO VOLUME 51

5770
Fluosol-DA/carbogen
 modulation of alkylating agents
 fibrosarcoma, mammary carcinoma, 1086
Folate
 -binding protein
 cloning of tumor-associated antigen, monoclonal antibodies, 6125
 marker for ovarian cancer, 5329
 content and distribution in liver
 choline deficiency, methotrexate treatment, 16
 mutation at *hprt* locus in T-cells
 breast cancer treatment, 6603
 natural
 antifolate compounds and, membrane transport in leukemia cells, 5507
 secretion of γ -glutamyl hydrolase, 3874
 serum levels
 invasive cervical cancer, 4785
Folinic acid
 schedule-dependent enhancement of cytotoxicity
 fluoropyrimidines, carcinoma cells, 4618
Folylpolyglutamates
 biochemical modulation of fluoropyrimidines
 leucovorin, 789
Forestomach
 benzo(a)pyrene-induced neoplasia
 inhibition, dietary soy sauce, 2940
 kidney carcinogenicity and
 caffeic acid, rats and mice, 5655
Formazan
 production parameters
 tetrazolium-based assays, cellular viability, 2515
5-Formyltetrahydrofolate
 diastereoisomers
 cellular growth, HCT-8 cells, 3476
Fotemustine
 O^6 -alkylguanine-DNA alkyltransferase depletion and regeneration, peripheral lymphocytes, 619
Free radicals
 elevated 8-hydroxydeoxyguanosine levels
 diethylstilbestrol-treated Syrian hamsters, 3882
Friend erythroleukemia cells
 modulation of *cis*-diamminedichloroplatinum(II) resistance
c-myc, 2118
 temporal mapping of differentiation pathway, 1668
Furan
 -induced cholangiosclerosis in rats, 5752

G

Galactose
 -conjugated antibodies
 cancer therapy, 1619
 β -Galactosidase
 secretion of lysosomal enzymes
 drug-sensitive and multiple drug-resistant cells, 1996
Galactoside
 -binding protein
 molecular cloning, chromosomal mapping, 2173

Galanin
 stimulation of Ca^{2+} mobilization
 inositol phosphate accumulation, small cell lung cancer, 1674
 stimulation of clonal growth
 small cell lung cancer, 3621
Gallium
 inhibition of ribonucleotide reductase
 murine leukemic L1210 cells, 6199
Gangliosides
 chimeric anti-G_{D2} antibody-mediated lysis
 neuroblastoma cells, 144
 detection of antigen in serum
 immunochemistry, small cell lung cancer, 2879
 G_{M2}-rich cultures of a human glioma cell line
 induction of necrosis, anti-G_{M12} monoclonal antibodies, 4643
G_{M3}
 megakaryocytoid differentiation, K562 cells, 1940
Gap junctions
 growth inhibition of oncogene-transformed fibroblasts
 cocultured normal cells, 5348
Gas chromatography-mass spectrometry
N-glycolylneuraminic acid expression
 human cancerous tissues, avian lymphoma cell lines, 1242
Gastric neoplasms
 detection of frequent *p53* gene mutations
 cell sorting and polymerase chain reaction, 3056
 lymph node metastasis
 protective value of Ki-67, 3503
 metastases
p53 gene mutations, 5800
 mucosal ornithine decarboxylase activity, 1448
 poor short term prognosis
 immunoreactivity, erbB-2 protein, 1034
smg p21A and *ras* p21 in human tissues, 2223
Gastrin releasing peptide
 antagonist
 inhibition of growth, human colon cancer xenografts, 6006
 RC-3095 and RC-160
 inhibitory effect, nitrosamine-induced pancreatic cancer, 5980
Gel electrophoresis
 measurement in individual cells
 DNA double-strand breaks, 4671
Gemcitabine
 action on DNA synthesis, 6110
 preclinical activity
 human head and neck cancer, 211
Gene
 abnormalities
 distinction of low grade from high grade, ovarian carcinoma, 4045
 acetylator polymorphism
 human colorectal carcinoma, 2098
ada
 enhanced repair of O^6 -methylguanine DNA adducts, 3391
 alterations
 progression, primary breast cancer, 5794
alterations of p53
 malignant mesothelioma, 5410
AMYB* and *BMYB
 chromosome locations, 3821
angiogenic growth factor
 primary human astrocytomas, 1345
approaches to study
 molecular basis of human cancer, 5015s
carcinoembryonic antigen-related gastric carcinoma, 5694
carcinogen
 rapid evolution, field of molecular epidemiology, 3617
 α class glutathione S-transferase
 antineoplastic drug sensitivity, MCF-7 cells, 587
colon cancer manganese superoxide dismutase
 complementary DNA, human cells, 939
common pathway
 skin tumor promotion, promoting agents, 1398
cripto
 transformation, mammary epithelial cell line, 1051
c-sis
 structure and expression, sporadic meningiomas, 4295
cyclic adenosine monophosphate-responsive element binding proteins
 rat hepatoma, 528
cytokine
 induction by flavone acetic acid, mouse splenic leukocytes, 6596
DCC
 susceptibility, nonpolyposis colorectal carcinoma, 4135
differential introduction and repair
 psoralen photoadducts, 2867
discordant expression
 T-cell receptor/CD3 complex, adult T-cell leukemia, 6084
errors
 cell proliferation, carcinogenesis, 6493
extrachromosomally amplified
 acceleration of loss by hydroxyurea, tumor cells, 6273
glucocorticoid receptor
 CCRF-CEM cells, 5224
GLUT1 glucose transporter
 thymidine uptake, Chinese hamster ovary cells, 4450
HER-2/neu
c-erbB-2, internalization of monoclonal antibody, 5361
 distinction of low grade from high grade, ovarian carcinoma, 4045
H-2K^b
 melanoma-associated antigen and lectin-binding cells, BL6 melanoma cells, 5212
HPRT
 $7\beta,8\alpha$ -dihydroxy-9 $\alpha,10\alpha$ -epoxy-7,8,9,10-tetrahydrobenzo(a)pyrene mutations, XP12BE cells, 2587
hprt deletion
 VDJ recombinase-like activity, fetal T-cells, 6001
H-ras
 imbalance of alleles on chromosome 7,

SUBJECT INDEX TO VOLUME 51

progression of squamous carcinoma cells, 4097
human
 phosphatidylinositol-3 kinase associated p85 α , chromosome region 5q12-13, 3818
 immunologic quantitation of TIMP-1 colon cancer, 6231
int-2 amplification deletion of 17p, esophageal carcinoma, 2113
 interstitial chromosomal deletion 4q11-q13, human hepatoma cell line, 1460
 lactoferrin polymorphism, leukemic cells and breast cancer, 3037
L-myc galactoside-binding protein, chromosomal mapping, 2173
 loss in human gastric carcinoma, 2926
 mammary cancer suppressor, 1591
mes v-H-ras oncogene transfer, mammary epithelial cells, 5298
 muscle-specific expression rhabdomyosarcoma, human fetal skeletal muscle development, 5100
 mutations p53/ras/p53-hsp 70, lung carcinoma, 4090
 mutator phenotype multistage carcinogenesis, 3075
myc activation heterotransplantation, lung carcinoma, 2566
myc-ras complementation c-myc gene-induced alterations, protein kinase C expression, 5514
nm23 somatic allelic deletion, human cancer, 2490
nm23-H2 identification, second *nm23* gene, 445
N-myc DNA amplification, neuroblastoma, 1946 human neuroblastoma, 6338
 nonrandom chromosome losses stepwise neoplastic transformation, uroepithelial cells, 3323
 normal and mutated K-ras alleles differential expression, induced thymic lymphomas, 5129
 oncogenic mechanisms radiation-induced cancer, 2740
p53 frequent allelic losses and mutations, ovarian cancer, 5171 mutations in colorectal tumors, familial polyposis coli, 2874
p53 alleles detection of aberrations, single-strand conformation polymorphism analysis, 3356
p53 mutations gastric cancer metastases, 5800 nonastrocytic human brain tumors, 6202 primary human breast cancer, 6194
p53 tumor suppressor mouse skin tumor progression, 6615

PIM-1 protein serine kinase, 2486
 β -platelet-derived growth factor receptor structure and expression, human tumor cell lines, 5626
 platelet-derived growth factor autocrine transformation, 5087
 proteasome and ubiquitin renal cancer cells, 6677
ras regulation of intracellular calcium, epidermal neoplasia, 4206
ras mutations low frequency, neuroectodermal tumors, 1596
ras mutations in non-small cell lung cancer shortened survival irrespective of treatment, 4999
RB intraocular tumor suppression, 6381
 renal cortical tumors characterization, 1544
 retinoblastoma inactivation, human bladder and renal cell carcinoma, 5736
 susceptibility of squamous cell carcinoma lung, relation to cigarette smoking dose, 5177
 susceptibility to liver and lung carcinogenesis quantitative analysis, mice, 6299
tat HIV, liver cancer in transgenic mice, 6686
 T-cell receptor T-cell neoplasms, acute lymphoblastic leukemia, 6103
 therapy immunotherapy and, cancer treatment, 5074s
 transforming neoplasia, reticulum cell sarcoma, 744
 transforming growth factor regulation by progestins, endometrial adenocarcinoma cells, 5476
 tumor necrosis factor reduced tumorigenicity and invasiveness, 2229
 tumor suppressor molecular genetic alterations, human bladder cancer, 5405
Genetics familial breast cancer in blacks, 1793
Genistein induction of differentiation erythroleukemia cells, 764
Genital tract disease bladder cancer, 629
Genotoxicity *N*-nitroso derivatives of β -adrenergic-blocking agents rat and human hepatocytes, 2273
Genotoxins induced chromosome damage individual susceptibility, 5266
Geraniol concentration-dependent increase murine P388 and B16 population doubling time, 37
Germ cell neoplasms testicular expression, *hst-1* and *c-kit* protooncogenes, 1811
Germ cells alkaline phosphatase transcriptional regulation, sodium butyrate and glycosylation, 2058
Gestation normal parturition and lactation dietary restriction, suppression of MMTV, 5123
Glial cells 3-methyladenine DNA glycosylase activity haloethylnitrosoureas, 1568
Glial fibrillary acidic protein complementary DNA cloning messenger RNA expression, glioma cell lines, 1553
Glial neoplasms chromosome 9 deletion mapping interferon α and interferon β -1 gene deletions, 1684
Glioblastoma cell invasion into fetal rat brain tissue alkyl-lysophospholipid, 1713 chondroitin sulfate proteoglycan expression proliferating brain capillary endothelial cells, 4986
Glioblastoma multiforme presence of acidic and basic fibroblast growth factors, 5760
Glioma absence of methylthioadenosine phosphorylase, 3193 amiloride treatment, 1039 5-bromo-2'-deoxyuridine incorporation into DNA modulation, fluoropyrimidines, 870 epidermal growth factor receptor system, 2164
G_{M2}-rich cultures induction of necrosis, anti-G_{M12} monoclonal antibodies, 4643
Gliosarcoma sensitization to low dose rate irradiation long duration 41° hyperthermia, 3088
 $\alpha_{2\mu}$ -Globulin necessity for D-limonene promotion male rat kidney tumors, 3512
Glucagon gene expression in rat and hamster islet cell tumors differential glucocorticoid regulation, 1196
Glucocorticoids differential regulation glucagon gene expression, rat and hamster islet cell tumors, 1196 growth suppression response dominant transacting factors, adenocarcinoma-derived rat mammary tumor cells, 6031 -induced autocrine heparin-binding growth factors proliferation, Shionogi carcinoma, 3006 insensitivity of P1798 lymphoma cells production of factor, attenuation of lytic response, 5551

SUBJECT INDEX TO VOLUME 51

insensitivity to cytolytic effects
novel "slow death" phenotype, 5544

resistance to lysis
truncated glucocorticoid receptor, lymphosarcoma, 2786

Glucose
intravenous vs. intraperitoneal injection
systemic hemodynamics and blood flow rate, normal and tumor tissues, 3612

radiation-induced fibrosarcoma-1 tumor metabolism
blood flow, nuclear magnetic resonance, 3108

stress protein induction
porphyrin photosensitization and, 6574

transporter expression
thymidine uptake, Chinese hamster ovary cells, 4450

Glucosides
podophyllotoxin glucoside to etoposide chemical and biological route, 5

7-N-[2-(2-(γ -L-Glutamylaminoethyl)disulfoethyl]-mitomycin C
antitumor activity, 110

γ -Glutamyl hydrolase
secretion, 3874

Glutathione
-based detoxifying enzymes
 P -glycoprotein, human colorectal tumors, 2092

role in synergism
4-hydroperoxy cyclophosphamide and cisplatin, leukemia cell lines, 2536

selenium and mammary tumors, 4617

thiol measurements and
surgically resected lung tumor, normal lung tissue, 4287

Glutathione peroxidase
increased activity in sarcoma cell line doxorubicin resistance, 521

Glutathione S-transferase α
antineoplastic drug sensitivity
MCF-7 cells, 587

hypersensitivity of CHO variants bleomycin killing, 4463

Glutathione S-transferases
cellular glutathione determination flow cytometry, monochlorobimane, 1783

human and rodent differential specificity of monochlorobimane, isozymes, 1606

specificity of isozymes conjugation, glutathione with L-phenylalanine mustard, 2410

Glutathione transferase
inhibitor ethacrynic acid combined with thiotapec, Phase I study, 6059

sensitization of melanoma cells, melphalan, 94

O-Glycans
aberrant attachment to leukosialin, differentiation-deficient HL-60 cells, 2854

biosynthesis in leukocytes normal donors, patients with leukemia, 1257

Glycolipids
composition

Had-1, cell growth inhibition by lactosylceramide, 1701

mouse monoclonal anti-fucosylceramide antibody establishment and characterization, 4182

N-Glycolyneuraminic acid
breast tumor-associated antigen monoclonal antibody 3E1.2, 5826

expression in human cancerous tissues avian lymphoma cell lines, gas chromatography-mass spectrometry, 1242

Glycoproteins
gp43
monoclonal antibody, hepatocellular carcinoma, 2158

gp185
antigen shed from mouse tumors, c-erbB-2 oncogene, 2593

M, 64,000 plasma membrane adhesion of tumor H-59 cells to hepatocytes, 3578

mucin-like epiglycanin, immunosuppressive activity, 1170

Glycosyltransferase
changes upon differentiation human colonic adenocarcinoma cells, 3136

15A8-Glycyl-tyrosyl-(N- ϵ -diethylenetriamine pentaacetic acid)-lysine immunohistochemistry and pharmacokinetics anti-breast carcinoma monoclonal antibody, 5744

Gonadotropin-releasing hormone
gene expression in breast carcinoma cell lines, 2577

Gonads
protection and fecundity rates cyclophosphamide-treated rats, 2124

G proteins
low molecular weight similarity of smg p21A and ras p21, normal and malignant tissues, 2223

Graft-vs-host disease
yttrium-90-labeled anti-Ly1 monoclonal antibody
radiotherapy, major histocompatibility barrier, 1891

Granulocytes
maturation topoisomerase II levels, 3534

Granulocytopoiesis
chronic myelogenous leukemia and mathematical model, 2084

Granulosa cells
ovarian cell-cell communication, multistep transformation, 696

Growth factors
abnormalities chromosomes, leukemia, 2494

acivicin-induced monocyte differentiation myeloid leukemia cells, 1202

angiogenic primary human astrocytomas, 1345

cytogenetics normal bronchial epithelium, lung cancer, 400

hormone-related tumors, 4114

-independent cell variants primary human melanomas, 2205

messenger RNA expression by human breast fibroblasts benign and malignant lesions, 4978

paracrine carcinoid cell production, fibroblast and endothelial cell growth, 5253

β -platelet-derived receptor gene structure and expression, human tumor cell lines, 5626

RNA expression
human malignant melanoma, markers of transformation, 4815

Guanosine triphosphate
nucleotide metabolism in CCRF-CEM cells (6R)-5,10-dideaza-5,6,7,8-tetrahydrofolic acid, 2291

Gynecological neoplasms
inhibition of tumor growth Müllerian inhibiting substance, 2101

H

Had-1
composition of glycolipids cell growth inhibition, lactosylceramide, 1701

2-Haloethylnitrosoureas
release of 7-alkylguanines modified DNA, 3-methyladenine DNA glycosylase II, 499

Halothylnitrosoureas
3-methyladenine DNA glycosylase activity glial cell line, 1568

Haloperidol
inhibition of experimental carcinogenesis azoxymethane, rat colon, 6150

H-59 cells
M, 64,000 plasma membrane glycoprotein adhesion to hepatocytes, 3578

HCT-8 cells
diastereoisomers of 5-formyltetrahydrofolate cellular growth :3476

Head and neck cancer
capture and growth of CD8⁺ and CD4⁺ T-cells, 3891

Heart
mitochondrial damage Adriamycin, electron spin resonance, 3555

Heat shock protein
expression in human x hamster hybrids loss, intrinsic heat resistance, 2636

HSP-28 and HSP-70 genes thermotolerance, leukemic and non-leukemic human tumors, 6608

M, 27,000 Chinese hamster cells, anticancer agent treatments and survival, 5245

HeLa cells
cyclin B expression G₂ block, ionizing radiation, 5113

host cell reactivation damaged plasmid DNA, 601

mechanism of G₂ inhibition epidermal growth factor, phorbol es-

SUBJECT INDEX TO VOLUME 51

ters, 4328

Hematological neoplasms

- interphase cytogenetics
- classical karyotyping, *in situ* hybridization, 1959

Hematopoietic cells

- functional epidermal growth factor receptors, 150
- maturity
- increased p53 protein levels, 4279

Hematopoietic growth factors

- new developments in clinical oncology, 5060s
- small cell lung carcinoma, 73

Hematopoietic progenitors

- bone marrow
- transforming growth factor- β , 4828
- leukemic
- cytotoxic activity, antitransferrin receptor immunotoxin, 536

Heme oxygenase

- induction in mammalian cells, 974

Hemin

- sensitivity of erythroleukemia cells
- 1- β -D-arabinofuranosylcytosine, 4535

Hemodynamics

- systemic
- intravenous vs. intraperitoneal glucose injection, normal and tumor tissues, 3612

Hemoglobin

- adduct formation
- frequency of urination, 4-aminobiphenyl, 4371
- 4-aminobiphenyl adducts
- measurement of, lung cancer, 5219

Heparin

- binding growth factors
- glucocorticoid induction, proliferation of Shionogi carcinoma, 3006
- lack of affinity
- platelet factor 4 analogue, inhibition of tumor growth, 2077
- platelet aggregation
- human melanoma cell line, 1286

Hepatitis B virus

- antigen and
- hepatitis B virus carrier patients, liver cancer, 4971
- chemical hepatocarcinogens and
- synergy, transgenic mice, 1278
- chromosome abnormalities
- peripheral blood cells, 6176
- integration event in chromosome 17p
- nearness to *p53* gene, hepatocellular carcinoma, 49

Hepatitis C virus

- antibodies
- association with hepatocellular carcinoma, Taiwan, 5621
- hepatitis B and
- etiology of hepatocellular carcinoma, Japanese population, 2842

Hepatitis virus

- woodchuck
- elevated formation, nitrate and N-nitrosodimethylamine, 3925

Hepatocarcinogenesis

- aflatoxin B₁-induced
- protection by Oltipaz, 5501
- age-dependent
- oxidative stress, nafenopin, 1789

cell lineage studies

- "resistant hepatocyte" model system, 1308

cell proliferation and preneoplastic foci

- ovarian hormones, 2,3,7,8-tetrachlorodibenzo-p-dioxin-mediated increases, 1391

modulation of hepatic mRNA translation activity

- arylsulfotransferase IV, 504
- nafenopin in aged rats, 666

Hepatocarcinogens

- hepatitis B virus and
- synergy, transgenic mice, 1278

Hepatocytes

- adhesion of tumor H-59 cells
- M, 64,000 plasma membrane glycoprotein, 3578
- origin and development of cancer
- cellular adaptation, 2751
- primary culture
- induction of DNA synthesis, rat liver tumor promoters, 1143
- rat
- cell death, transforming growth factor- β , 2478
- rat and human
- genotoxic effect, *N*-nitroso derivatives of β -adrenergic-blocking agents, 2273
- rat liver tissue and
- aflatoxin B₁-DNA adducts, immunofluorescence, 1720
- reversible and phorbol ester-specific defect
- protein kinase C translocation, 130
- strain-specific sensitivity
- diethylnitrosamine-induced carcinogenesis, 3257

Hepatoma

- 1,3-bis(2-chloroethyl)-1-nitrosourea resistance
- γ -irradiation or drug pretreatment, 1217
- cyclic adenosine monophosphate-responsive element binding proteins, 528
- cytotoxicity
- trichosanthin-monoclonal antibody conjugate, 3353
- human cell line
- interstitial chromosomal deletion, 4q11-q13, 1460
- tumor metabolism
- ex vivo* model, tumor metabolism, 841

Hepatoma cells

- lipid peroxidation
- enrichment *in vitro* with arachidonic acid, 4603
- vacuole formation and cytoskeleton rearrangement
- teleocidin, 2677

Hepsulfam

- Phase I and pharmacokinetic study, 5781
- Phase I clinical and pharmacokinetic trial, 6268

Herpes simplex virus

- anal intraepithelial neoplasia and anal cancer
- human papillomavirus DNA, 1014

Herpesviruses

- AIDS and non-Hodgkin's lymphoma,

4743

Hexadecylphosphocholine

- inhibition of inositol phosphate formation
- protein kinase C activity, 807

Hexamethylene bisacetamide

- administration via nasogastric tube
- Phase I bioavailability, pharmacokinetics, 1803

Hippel-Lindau disease

- detailed deletion mapping
- short arm of chromosome 3, sporadic renal cell carcinoma, 4707

Histiocytoma

- human malignant fibrous
- biological behavior, cloned cells, 2133

Histiocytosis

- malignant
- differentiation into macrophage-like cells, phorbol diester, 5712

HLA complex

- A, -B, -C antigens
- primary and metastatic tumor cell populations, human carcinoma, 6372
- A2 antigen in human melanoma cell lines
- T-cell recognition, 3164

class I and II antigens

- bronchogenic carcinoma, 4948

class I expression

- independence of *c-myc* activation, non-small cell lung cancer, 2463

HL-60 cells

- cell cycle effects
- 8-Cl-cAMP, N⁶-benzyl-cAMP, 6263
- degradation of nuclear DNA in S phase
- camptothecin, teniposide, or 4'-(9-acridinylamino)-3-methanesulfon-m-anisidine, 1165

differentiation-deficient

- aberrant O-glycans attached to leukosialin, 2854

modulation of tumor cell membrane permeability

- multiparametric flow cytometry, 799
- potentiation of 1- β -D-arabinofuranosylcytosine cytotoxicity
- 1,25-dihydroxyvitamin D₃, 3451

single 3.7-kilobase messenger RNA

- cytomegalovirus enhancer, acute myeloid leukemia, 4724

Homocysteine

- plasma
- methotrexate, acute lymphoblastic leukemia, 828

Hormones

- carcinogenesis, 3626
- related tumors
- growth factors, 4114
- reproductive factors and
- uveal melanoma, women, 1370

HT-29 cells

- cytotoxic effects
- acoustic cavitation, 3024
- streptozotocin/bis-chloroethylnitrosourea therapy
- O⁶-methylguanine DNA methyltransferase activity, 1581

undifferentiated and enterocytic-differentiated

- lipid characteristics, 1270

SUBJECT INDEX TO VOLUME 51

HTLV-I
defective provirus form
adult T-cell leukemia/lymphoma, 4639

Human anti-murine antibody
single and multiple dose clinical studies
human immune response, LY256787 and LY203728, 2286

Human immunodeficiency virus
tat gene
liver cancer in transgenic mice, 6686

Hyaluronate
high and low levels of CD44
melanoma cell variants, 6660

Hybridomas
anti-ricin
ligand effect, intracellular trafficking of ricin A chain, 1689

Hydrogen peroxide
6-hydroxydopamine and
ascorbic acid, DNA strand-breaks in neuroblastoma, 6060
neutrophil-mediated tumor cytotoxicity modulation by Na^+/H^+ exchange, 3212
nickel(II)- and cobalt(II)-dependent damage
DNA bases, human chromatin, 5837
production of large amounts
human tumor cells, 794

4-Hydroperoxycyclophosphamide
cisplatin and
role of glutathione in synergism, leukemia cell lines, 2536

4-Hydroxyandrostenedione
murine Leydig tumor cell steroidogenesis, 3663

8-Hydroxydeoxyguanosine
elevated levels in DNA
diethylstilbestrol-treated Syrian hamsters, 3882

6-Hydroxydopamine
hydrogen peroxide and
ascorbic acid, DNA strand-breaks in neuroblastoma, 6060

Hydroxyl radical
major alterations in nucleotide structure
DNA, cancer of female breast, 5430

N-(4-Hydroxyphenyl)retinamide
prevention of primary prostate cancer, 3610

12-Hydroxystearic acid
nontoxic polyethylene esters
Soluto HS 15, reversal of multidrug resistance, 897

Hydroxyurea
acceleration of loss
extrachromosomally amplified genes, tumor cells, 6273
cis-diammine-1,1-cyclobutane dicarboxy-latoplatinum(II)
inhibition of DNA interstrand cross-link removal, 1984

Hypercalcemia
malignancy-associated
dysregulation, parathyroid hormone-like peptide expression, 6521

Hyperglycemia
glucose and mannitol effects
radiation-induced fibrosarcoma-1 tumor metabolism, 3108
red blood cell rigidity

tumor blood flow, 2727

Hyperplasia
inhibition of tumor growth by tumor mass, 2
squamous cell regression, forestomach lesions, 318

Hypertension
interstitial carcinoma of uterine cervix, tumor oxygenation and radiation response, 6695
superficial metastatic melanoma, 6691

Hyperthermia
cytosolic Ca^{2+}
digitized imaging microscopy, cell survival, 359
cis-diamminedichloroplatinum(II) and radiation, mammary carcinoma, 707
localization of ^{111}In -labeled hapten bifunctional antibody, human colon tumor xenografts, 1515
long duration 41°
sensitization of gliosarcoma cells, low dose rate irradiation, 3088

Ionidamine and chemotherapy combination therapy, RIF-1 tumor, 5910

normal tissue toxicity
Adriamycin pharmacokinetics, 1680
whole body
Adriamycin, tumor and normal tissues, 3559
carboplatin and, normal tissue and tumor in rats, 2994
protective effect of ICRF-187, Adriamycin, 3568

Hypertriglyceridemia
tissue lipoprotein lipase activity
messenger RNA levels, tumor-induced alterations, 863

Hypomethylating agents
increased sensitivity of nontumorigenic fibroblasts
ras or myc oncogenes, 2-aza-2'-deoxycytidine, 324

Hypoxanthine-guanine phosphoribosyl transferase
factors affecting mutation
T-cells, breast cancer treatment, 6603

Hypoxia
fractions
xenografted human colon tumors, 5139
oxygenation of human tumors, 3316

I

ICAM-1
serum levels
human malignant melanoma, 5003

ICI 182,780
clinical potential, 3867

ICI D1694
potent inhibitor of L1210 tumor cell growth, 5579

ICRF-187
protective effect against normal tissue injury
Adriamycin, whole body hyperthermia, 3568

Idarubicin
-monoclonal antibody conjugates

disseminated thymic lymphoma model, 310

Imidazoisoquinolines
cytotoxicity
human malignant cell lines, 43

Imidazopiperidines
cytotoxicity
human malignant cell lines, 43

Immortalization
Syrian hamster embryo cells multistep event, 1177

Immune response
antigen-specific
anti-idiotypic monoclonal antibodies, anti-CEA antibodies, 2599
 ^{131}I -chimeric mouse/human B72.3 monoclonal antibody
pharmacokinetics, humans, 5461
local activation
interleukin 2 intraarterial infusion, bladder neoplasms, 2456

Immunity
tumor
transplantation, 757

Immunoassay
quantitation of TIMP-1
colon cancer, 6231

Immunohistochemistry
small cell lung cancer-associated ganglion-side antigen
detection in serum, 2879

Immunoconjugates
epidermal growth factor receptor-reactive monoclonal antibodies
xenograft antitumor activity, 5471
interleukin 2
enhanced tumor uptake, macromolecules, 2694
 ^{177}Lu -labeled
monoclonal antibody-based therapy, human tumor xenograft, 2889
monoclonal antibody-Vinca alkaloid solid tumor membrane antigen, antigen-antibody complexes, 2965

Immunocytochemistry
estrogen and progesterone receptors
normal female breast, 1817
sensitivity
detection of breast cancer cells, human bone marrow, 2706

Immunofluorescence
aflatoxin B₁-DNA adducts
woodchuck hepatocytes, rat liver tissue, 1720

Immunogenicity
lack of effect of cyclophosphamide
melanoma antigen vaccine, 3643
monoclonal antibodies
conjugation of drugs, 5774
natural cell-mediated cytotoxicity
ultraviolet radiation, MCA105 tumor cells, 5153

Immunoglobulin G
-anti-CD22 and Fab'
antitumor activity, human B lymphoma in SCID mice, 5876

G2a and G2b
rapid blood clearance, nude mice, 3102

myeloma
glycosylation at Fab portion, antibody-lectin enzyme immunoassay, 5888

SUBJECT INDEX TO VOLUME 51

Immunoglobulins
 binding to HPV-16-derived proteins L1 and E4
 cervical secretions, HPV-related cervical disease, 4423
 diphtheria toxin A-chain coding sequence
 toxicity to B-lymphoid cells, 4299

Immunoscintigraphy
 c-erbB-2 proto-oncogene products, 990
 computerized tomography and identification, colorectal cancer, 5704

Immunosuppression
 epiglycanin
 mucin-like glycoprotein, mammary adenocarcinoma, 1170
 large-animal human brain tumor xenograft model
 cats, 2430
 ultraviolet radiation-induced systemic absence of, UV-induced murine tumors, 2773

Immunotherapy
 adoptive
 peripheral blood T-cells, LAK cells and interleukin 2, 1494
 cloning of tumor-associated antigen
 monoclonal antibodies, folate binding protein, 6125
 gene therapy and
 cancer treatment, 5074s
 interleukin 2 liposomes
 anti-CD3-stimulated T cells, hepatic metastasis, 2127
 interleukin 2 production
 colorectal cancer patients, human monoclonal anti-idiotypic antibody, 5425
 low-dose interleukin 2 and tumor necrosis factor- α
 advanced non-small cell lung cancer, 3669

Tn antigen, 1406
 transduction and expression of human CEA gene
 murine colon carcinoma cell line, 3657

Immunotoxins
 anti-transferrin receptor
 cytotoxic activity, leukemic human hematopoietic progenitors, 536
 covalent binding of α_2 -macroglobulin deglycosylated ricin A chain, 1482
 Fab' and immunoglobulin G-anti-CD22 antitumor activity, B lymphoma, 5876
 mistletoe lectin A-chain, 916
 pharmacokinetics and tumor localization M_r , 30,000 form, ricin A chain, 4219

Phase I trial
 B-cell lymphoma, 4052
 preparation with blocked ricin therapeutic use, 6235
 recombinant membrane-acting, 465
 ricin A chain
 potentiation, monensin in lipid emulsion, 4316
 ^{90}Y -labeled C110 anti-carcinoembryonic antigen
 preclinical assessment, colon cancer, 255

Immunotoxin-791T/36-RTA
 endocytosis by tumor cells relation to cytotoxic action, 1990

Implants
 "artificial organ"
 B16 melanoma metastasis, 2444

Indium-111
 localization of hapten to bifunctional antibody
 human colon tumor xenografts, 1515

Indole-3-carbinol
 promotion of aflatoxin B₁ carcinogenesis, 2362

Indomethacin
 misonidazole and
 therapeutic ratio of radiotherapy, murine sarcoma, 3639
 tumor growth
 development of cancer cachexia, 880
 tumorigenesis
 mammary carcinoma, high- or low-fat diet, 2683

Inflammation
 immunization with haptenized tumor cells
 induction, melanoma metastases, 2731

Inosine 5'-monophosphate dehydrogenase type II
 messenger RNA expression, human leukemias, 3886

Inositol phosphate
 accumulation
 stimulation by galanin, small cell lung cancer, 1674
 differential binding and biological activities
 epidermal growth factor, transforming growth factor- α , 6243
 inhibition of formation
 hexadecylphosphocholine, protein kinase C activity, 807

Insulin-like growth factor
 binding proteins
 human central nervous system tumors, 3030
 purification, colon cancer cell growth inhibitor, 2813
 binding to Tera-2 human embryonal carcinoma cells
 differentiation, 4395
 receptor messenger RNA
 transcriptional mechanism, c-myb, 5997

Insulin-like growth factor-I
 epidermal growth factor receptors and autocrine stimulation, esophageal carcinoma, 1898
 expression and binding proteins
 receptors, ovarian cancer, 5107
Pseudomonas exotoxin and recombinant fusion protein, cytotoxic activity, 174
 tyrosine phosphorylation of M_r 150,000 kDa protein
 metastatic colon carcinoma cells, 5859

Insulin-like growth factor-II
 growth factor mRNA expression
 breast fibroblasts, benign and malignant lesions, 4978

Integrin $\alpha^6\beta_4$
 A9 antigen
 aggressive human squamous carcinoma, 2395

β_1 Integrin
 human small cell lung cancer cells, 1065

Intercellular adhesion molecule 1: see ICAM-1

Interferon
 differentiation of neuroblastoma
 retinoic acid, dibutyryl cyclic adenosine 3':5'-monophosphate, 3958
 elevation of serum carcinoembryonic antigen
 TAG-72, 4155
 -induced inhibition of spontaneous metastases
 natural killer and T-cells, melanoma, 1124
 -induced resistance
 abrogation of, cell-mediated cytotoxicity and 5-fluorouracil in melanoma, 3159

α -Interferon
 class I major histocompatibility complex peripheral blood mononuclear cells, plasma of melanoma patients, 652
 down-regulation of epidermal growth factor receptors
 renal carcinoma cells, 5881
 inhibition of cytokine-induced lipogenesis
 interleukin 4, 2803
 interferon β -1 gene deletions and chromosome 9 deletion mapping, glial tumors, 1684
 -gelatin conjugate
 in vivo murine tumor cell growth, 5532
 reversal of Adriamycin resistance
 colon carcinoma, 4898
 upregulation of epidermal growth factor receptor
 human epidermoid cancer cells, 1294

β -Interferon
 natural
 Phase I trial, metastatic malignancy, 836

γ -Interferon
 antitumor activity
 ascitic and solid tumor models, ovarian cancer, 6643
 enhancement of metastatic potential, 4020
 enhancement of radioimmunotherapy
 colon carcinoma, 2335
 interleukin 2 and
 Phase I evaluation, 3910
 interleukin 4 and α -tumor necrosis factor modulation, melanoma cells, 2002
 reduced tumorigenicity of murine tumor cells
 nonspecific host responses, 1185
 tumor necrosis factor- α and
 androgen-dependent and -independent prostatic tumors, 2329
 experimental model, cancer cachexia, 2302
 α -tumor necrosis factor or
 interleukin 4, inhibition of cell growth in renal cell carcinoma, 5687

Interleukin 1
 antiproliferative effect
 human ovarian carcinoma cell line, 1823
 cell resistance to tumor necrosis factor cytotoxicity
 growth arrest, G₁ phase of cell cycle, 2379

SUBJECT INDEX TO VOLUME 51

inhibition of cytokine-induced lipogenesis
interleukin 4, 2803
protection
 β -D-arabinofuranosylcytosine-induced alopecia, 3329
transcription by human melanoma cells
 monocytes, 3334
tumor-derived
 melanoma-endothelial cell interactions, 4768
 tumor necrosis factor- α and
 tumor growth and development, cancer cachexia, 415

Interleukin 1 α
 antitumor drugs and
 combination effect, syngeneic tumors in mice, 215
 block of estradiol-stimulated growth down-regulation of estrogen receptor, MCF-7 cells, 1488
 interleukin 1 receptor and etoposide melanoma cells, 769
 potentiation of antitumor activity mitomycin C and porfiromycin, solid tumor models, 5454

Interleukin 1 β
 initial sensitization and subsequent protection
 photon radiation, stem cells, 2280

Interleukin 2
 Adriamycin and
 augmentation of immunity, renal cell carcinoma, 6133
 cytolytic potential of peripheral blood T cells
 adoptive immunotherapy, 1494
 exogenous
 in vitro LAK activity, *in vivo* activated lymphocytes, 2324
 -induced leukocyte adhesion
 normal and tumor microvascular endothelium, dextran sulfate, 1561
 induction of graft vs. leukemia effect bone marrow transplantation, 2015
 γ -interferon and
 Phase I evaluation, 3910
 intraarterial infusion
 local activation of immune response, bladder neoplasms, 2456
 liposomes
 anti-CD3-stimulated T cells, hepatic metastasis, 2127
 low-dose
 biological monitoring, cytokines and cell surface phenotypes, 6312
Nocardia rubra cell wall skeleton and LAK cell induction, 5261
novel vasoactive immunoconjugate enhanced tumor uptake, macromolecules, 2694
production induced in colorectal cancer patients
 immunization, human monoclonal anti-idiotypic antibody, 5425
protein kinase C modulation
 lymphocyte proliferation, 82
solid phase, 875
tumor-infiltrating lymphocytes
 renal cell carcinoma, 4199
 tumor necrosis factor- α and
 Phase I, advanced non-small cell lung cancer, 3669
 preclinical study, canine neoplasms, 233

Interleukin 3
 -dependent proliferation
 human MO-7e cell line, activation of late G₁ genes, 1741
 hematopoietic growth factors
 small cell lung carcinoma, 73
 megakaryocytic features
 leukemic cell line establishment, 341
 phorbol ester and activated H-ras
 mast cells, 632
 receptor-associated protein
 inhibition of growth by monoclonal antibody, mouse leukemic cell lines, 4355

Interleukin 4
 alone and with γ -interferon or α -tumor necrosis factor
 inhibition of cell growth, renal cell carcinoma, 5687
 down-regulation
 tumorigenic state, human alveolar macrophages, 5526
 high-affinity receptors
 chimeric protein, murine sarcoma cells, 3011
 inhibition of stimulation
 hepatic lipogenesis, various cytokines, 2803
 γ -interferon and α -tumor necrosis factor modulation, melanoma cells, 2002
 potentiation of antiproliferative effect tumor necrosis factor, various tumor cell lines, 4266

Interleukin 6
 cell resistance to tumor necrosis factor cytotoxicity
 growth arrest, G₁ phase of cell cycle, 2379
 human malignant nonhematopoietic cell lines and
 interactions, 3862
 inhibition of cytokine-induced lipogenesis
 interleukin 4, 2803
 neopterin and
 predictive value, multiple myeloma, 6250
 Pseudomonas exotoxin chimeric molecules
 human hepatocellular carcinoma in mice, 2831

Interleukins
 AIDS and non-Hodgkin's lymphoma, 4743

Intermediate filaments
 expression of N-myc
 human neuroblastoma, 6338

Intestinal mucosa
 altered protein kinase C activity
 biopsies, colonic adenoma and carcinoma, 205

Intestine
 alkaline phosphatase
 tumorigenic potential, irradiated hybrids, 4455
 apomucins
 relationship, pancreatic apomucin, 1026
 furan-induced cholangiolitis in rats,

large
 nonfamilial neoplasia, rectal mucosal cell proliferation, 1917

Iodide
 -deficient area
 ras codon 61 mutation, thyroid tumors, 2690

Iodine-131
 labeled monoclonal antibodies
 infusion, biodistribution and dosimetry, 5921

m-Iodobenzylguanidine
 accumulation by neuroblastoma cells
 independent uptake and storage mechanisms, 4342

Iodo-deoxyuridine
 incorporation
 fluorodeoxyuridine-mediated modulation, colon cancer cells, 3900

4-Iodotamoxifen
 pyrrolidino-4-iodotamoxifen and treatment of breast cancer, 5851

4-Ipomeanol
 metabolic activation
 complementary DNA-expressed human cytochromes P-450, 4636

Iron
 -dependent DNA strand-breaks
 6-hydroxydopamine and hydrogen peroxide, neuroblastoma cell line, 6060

Irradiation
 low dose rate
 sensitization of gliosarcoma cells, long duration 41° hyperthermia, 3088
 nude rat model
 orthotopic human lung cancers, 3274

γ -Irradiation
 1,3-bis(2-chloroethyl)-1-nitrosourea resistance
 rat hepatoma cells, 1217
 intestinal alkaline phosphatase expression
 tumorigenic potential, hybrids, 4455

Ishikawa cells
 silver-stained nucleolar organizer regions norethindrone, 5987

Isoprenoids
 concentration-dependent increase P388 and B16 doubling time, acyclic monoterpene geraniol, 37

N-Isopropyl-p-formylbenzamide
 potentiation of cytotoxic action mafosfamide, 4170

Isothiocyanate
 inhibition of metabolic activation 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone, 4798

J

Japan
 hepatitis C and hepatitis B etiology, hepatocellular carcinoma, 2842

JB6 cells
 phorbol ester-induced transformation synergistic inhibition, transforming growth factor- β and retinoic acid, 1158

K

Karyotyping

SUBJECT INDEX TO VOLUME 51

classical
in situ hybridization, interphase cytogenetics of hematological cancer, 1959

KB cells
 β -arylamino derivatives of 4'-O-demethyllepidopophyllotoxin
DNA topoisomerase II, tubulin polymerization, 1755
etoposide-resistant mutants
increased phosphorylation, DNA topoisomerase II, 3951

K562 cells
highly glycosylated methotrexate membrane carrier, 3420
inhibition of human ribonucleotide reductase
2-chloro-9-(2-deoxy-2-fluoro- β -D-arabinofuranosyl)adenine, 2386
megakaryocytoid differentiation induction, ganglioside GM₃, 1940
multidrug-resistant inhibition of P-glycoprotein expression, Activin A, 2582

Keratin
expression
c-Ha-ras-transfected tumorigenic clones, 4402

Keratin 19
abnormal expression of retinoic acid receptors
oral and epidermal squamous cell carcinoma, 3972

Keratinocytes
activation of autocrine transforming growth factor- α pathway
human squamous carcinoma cells, 6254
malignant human papillomavirus type 16-transformed
altered expression, extracellular matrix glycoproteins, 5967
normal and neoplastic induction of protein kinase C agonist effects, staurosporine, 4677
regulation of intracellular calcium, ras gene mutations, 4206
parathyroid hormone-like peptide expression and secretion dysregulation, tumor progression, 6521

Ki-67
protective value
argyrophilic nucleolar organizer region, lymph node metastasis in gastric cancer, 3503

Kidney
early lesions
estrogen-induced tumors, 1922
forestomach carcinogenicity and caffeoic acid, rats and mice, 5655

Kidney neoplasms
coexistence
autologous antibodies, decay-accelerating factor, 2521
cortical tumors characterization, 1544
genetic approaches to study molecular basis of human cancer, 5015
presence of α_{2u} -globulin D-limonene promotion, 3512

proteasome and ubiquitin genes changes in expression, 6677

Kiel classification
frequency and structure t(14;18) major breakpoint regions, non-Hodgkin's lymphoma, 3243

Kinesin
expression and type IV collagenase secretion invasive prostate PC-3 tumor sublines, 5866

K-ras
mutations 1,2-dimethylhydrazine-induced colonic tumors, dietary calcium and vitamin D deficiency, 4305

KW-2149
antitumor activity, 110

L

Lactation
normal parturition and dietary restriction, suppression of mouse mammary tumor virus, 5123

Lactoferrin
polymorphism and altered methylation of gene normal leukocytes, leukemic cells and breast cancer, 3037

Lactose
-binding lectin metastatic stages, colorectal carcinoma, 387

Lactosylceramide
cell growth inhibition Had-1, composition of glycolipids, 1701

LAK cells
cytolytic potential of peripheral blood T-cells adoptive immunotherapy, 1494
in vitro activity *in vivo* activated lymphocytes, exogenous interleukin 2, 2324
synergistic effect *Nocardia rubra* cell wall skeleton, interleukin 2, 5261

Laminins
A and C differential expression, lung cancer cell lines, 581
synthetic peptide CDPGYIGSR-NH₂ inhibition, angiogenesis and tumor growth, 903

L1210 cells
inhibition of poly(adenosine diphosphate-ribose) polymerase thymidine and its analogues, 1,3-bis(2-chloroethyl)-1-nitrosourea, 1586 inhibitor of tumor cell growth ICI D1694, 5579
transport multiplicity and energetics methotrexate efflux, 1412
unexpected biotransformation pathway tetrachloro-(*d,l-trans*)-1,2-diaminocyclohexaneplatinum(IV), 969

Le^a antigen
dimeric epitope antitumor effects, monoclonal antibody, 2199

Lectin

A-chain
mistletoe, immunotoxin, 916

Amaranthus caudatus
histochemical probe, proliferating colonic epithelial cells, 657

-binding cells
H-2K^b gene expression, BL6 melanoma cells, 5212
endogenous lactose-binding metastatic stages, colorectal carcinoma, 387

Leiomyosarcoma
dbl protooncogene preferential expression, 4234

Lens culinaris
agglutinin for antibody-lectin enzyme immunoassay sugar chains, myeloma IgG, 5888

Leucovorin
biochemical modulation of fluoropyrimidines folylpolyglutamates, 789
high-dose oral plus 5-fluorouracil, children with refractory cancer, 4871

Leukemia
acute interleukin 2, immunological changes, 964
ALL-1 involved in cloning of, 6712
antagonism camptothecin and topoisomerase II-directed chemotherapeutic agents, 1129
biosynthesis of O-glucans in leukocytes, 1257
breakpoint of t(11;14) and t(11;19), 6708
childhood maternal and perinatal risk factors, 3696
chromosomal and growth factor abnormalities, 2494
DNA interstrand cross-linking rapid endonucleolytic cleavage, N-(5,5-diacetoxypentyl)doxorubicin, 6704
effects of 8-Cl-cAMP and N⁶-benzyl-cAMP kinetics, HL-60 cells, 6263
expression of HSP-28 and HSP-70 genes thermotolerance, 6608
graft vs. leukemia effect interleukin 2, bone marrow transplantation, 2015
interphase cytogenetics classical karyotyping, *in situ* hybridization, 1959
meningeal preclinical pharmacology, intrathecal 6-mercaptopurine, 6079
modulation of multidrug resistance cyclosporin A, verapamil, 1749
patterns of DNA methylation, 3702
point mutation in topoisomerase II gene amsacrine-resistant form, topoisomerase II, 4729
refractory or relapsed acute Phase I clinical investigation, amonafide, 935
regulation of deoxycytidine kinase uridine nucleotides, 1- β -D-arabinofuranosylcytosine phosphorylation, 2559

SUBJECT INDEX TO VOLUME 51

role of glutathione
 synergism, 4-hydroperoxycyclophosphamide and *cis*-diamminedichloroplatinum(II), 2536

type II inosine 5'-monophosphate dehydrogenase
 messenger RNA expression, up-regulation, 3886

Leukemia, B-cell
 -lymphoma
 monoclonal antibody SN10, internalization into cells, 2985

Leukemia, L1210
 inhibition of ribonucleotide reductase gallium, 6199

membrane transport
 natural folates, antifolate compounds, 5507

participation of T-cells in curative effect *N,N'*-bis[3-(ethylamino)propyl]-1,7-heptanediamine, 62

Leukemia, lymphoblastic
 acute
 measurement of serum L-asparagine, 6568
 plasma homocysteine, children, 828
 T-cell receptor gene configurations, 6103

B precursor acute
 methylation status, T-cell receptor β -chain, 2917

trimetrexate resistance
 protein kinase C activity, multidrug resistance, 55

Leukemia, myelogenous
 benign phase chronic
 detection of BCR-ABL proteins, blood cells, 3048

chronic
 granulocytopoiesis and, mathematical model, 2084

Leukemia, myeloid
 acivicin-induced monocytoid differentiation
 messenger RNA expression, 1202

acute
 cytomegalovirus enhancer, single 3.7-kilobase messenger RNA, 4724

c-jun expression
 camptothecin and its derivatives, 6636

internucleosomal DNA fragmentation
 1- β -D-arabinofuranosylcytosine, 741

Leukemia, P388
 concentration-dependent increase in doubling time
 acyclic monoterpene geraniol, 37

pleiotropic drug-resistant cells
 cellular pharmacology, MX2, 157

Leukemia, T-cell
 adult
 defective provirus form, HTLV-I, 4639

discordant gene and surface expression, T-cell receptor/CD3 complex, 6084

Leukemia-inhibitory factor
 cancer cachexia syndrome
 mice bearing melanoma cells, 6656

Leukemia virus
 Abelson murine
 SV40 retrovirus and, induction of differentiation by protein kinase inhibi-

tors, 4649

radiation
 induction, preleukemic cells, 2179

Leukemic cells
 CCRF-CEM cells
 normal and mutant glucocorticoid receptor gene, 5224

cell line establishment
 megakaryocytic features, 341

expression of three major protein kinase C isozymes, 4271

inhibition of growth by monoclonal antibody
 interleukin 3 receptor-associated protein, 4355

inhibition of protooncogene expression antisense oligodeoxynucleotides, 4505

lactoferrin and polymorphism, 3037

Leukocytes
 biosynthesis of O-glycans
 normal donors, patients with leukemia, i257

interleukin 2-induced adhesion
 normal and tumor microvascular endothelium, dextran sulfate, 1561

normal
 lactoferrin and polymorphism, 3037

polymorphonuclear nonoxidative lysis, neuroectodermal tumor cells, 4865

splenic
 cytokine gene expression, flavone acetic acid, 6596

Leukosialin
 aberrant O-glycans
 differentiation-deficient HL-60 cells, 2854

Leukotrienes
 inhibition
 murine transformed Leydig cell proliferation, 5573

Leydig cells
 proliferation
 inhibition by leukotrienes, 5573

steroidogenesis
 effect of 4-hydroxyandrostenedione, 3663

Li-Fraumeni syndrome
 follow-up study of twenty-four families, 6094

germ line mutation in exon 5
p53 gene, 6385

Ligands
 intracellular trafficking of ricin A chain anti-ricin hybridomas, 1689

D-Limonene
 promotion
 presence of α_{2u} -globulin, 3512

Linoleic acid
 conjugated dienoic derivative
 mammary cancer prevention, 6118

phorbol ester-elicited tumor promotion
 dietary fat, mouse skin, 907

Lipid peroxidation
 conjugated dienoic derivative of linoleic acid
 mammary cancer prevention, 6118

cytotoxic effect of *cis*-parinaric acid cultured malignant cells, 6144

enrichment *in vitro* with arachidonic acid rat AH-130 hepatoma cells, 4603

Lipids

characteristics
 undifferentiated and enterocytic-differentiated HT29 colonic cells, 1270

compositions of intracellular membranes rat liver nodules, 3774

-dependent proliferation
 pancreatic cancer cell line, 3633

emulsion
 monensin, potentiation of ricin A chain immunotoxins, 4316

lipophilic antifolates
 phenotype conferring selective resistance, Chinese hamster ovary cells, 2949

lipoprotein cholesterol changes
 weight changes, prior to cancer diagnosis, 3198

Lipogenesis
 cytokine-induced inhibition of, interleukin 4, 2803

Lipoma
 cytogenetic profile, 422

Lipoprotein
 boronated low-density boron neutron capture theory, biological efficacy, 4588

lipase activity messenger RNA levels, tumor-induced alterations, 863

Lipoprotein lipase
 cancer cachexia syndrome leukemia-inhibitory factor, mice bearing melanoma cells, 6656

Liposomes
 interleukin 2
 anti-CD3-stimulated T cells, hepatic metastasis, 2127

-lipophilic tumor necrosis factor preparation and characterization, 3362

macrophage activator CGP 31362 therapy of spontaneous lung metastasis, renal adenocarcinoma, 3741

Lipoxygenase
 inhibitory effects of curcumin mouse epidermis, 813

Liver
 adduct formation after 4-aminobiphenyl frequency of urination, 4371

adult rat
 multiple α -fetoprotein RNAs, 4656

carcinogenesis
 modulation by butylated hydroxytoluene, 2-acetylaminofluorene exposure, 6224

cell lineage studies hepatocarcinogenesis, 1308

cryosurgery colorectal metastases, 6323

decrease in catalase activity tumor necrosis factor/cachectin, 3990

development cell lineages, oval cell progenitors, 2611

DNA and RNA
 oxidative damage, nitroalkanes, 3143

epithelial cells
 clonal cosegregation of tumorigenicity, *c-myc* and TGF- α , 5238

drug-metabolizing enzymes, procarcinogens, 301

resistance to growth inhibitory effects, transforming growth factor- β , 5929

SUBJECT INDEX TO VOLUME 51

esophagus and
tumor induction, dose and time relationships, 6452

5-fluorouracil metabolism
¹⁹F magnetic resonance spectroscopy, 1384

folate content and distribution
choline deficiency, methotrexate treatment, 16

glutathione S-transferase
specificity of isozymes, L-phenylalanine mustard, 2410

hepatic metastasis
interleukin 2 liposomes, anti-CD3-stimulated T cells, 2127

hepatitis B virus and chemical hepatocarcinogens
synergy, transgenic mice, 1278

inhibition of cytokine-induced lipogenesis
interleukin 4, 2803

lung carcinogenesis and
quantitative analysis, genetic susceptibility, 6299

metabolic activation and inactivation
1-nitropyrene, species differences, 3919

metabolism of 7,12-dimethylbenz(a)anthracene, 492

metastasis of gastric carcinoma
autotumor-reactive T cell clones, tumor-infiltrating lymphocytes, 6153

microsomes
cytochrome P-450 activation, cigarette smoke, 5284

nodules
lipid compositions, intracellular membranes, 3774

P450 enzymes
thio-TEPA oxygenation, drug metabolism and clearance, 2340

perfusion and hepatic artery infusion
5-fluorouracil, 1694

rat and human
P-450-mediated activation, tamoxifen, 6052

rat fetus
localization, parathyroid hormone-like peptide, 6351

tumor promotion
induction of DNA synthesis, human hepatocyte primary cultures, 1143

protein kinase C translocation, 130

woodchuck hepatocytes and
aflatoxin B₁-DNA adducts, immunofluorescence, 1720

Liver neoplasms
aberrations of tumor suppressor p53
retinoblastoma genes, hepatocellular carcinoma, 5520

aflatoxin B₁-induced hepatocarcinogenesis
protection by Oltipaz, 5501

chronic ingestion of NDEA or NDMA
detailed dose-response study, 6415

hepatitis B virus carrier patients
hepatitis B x antigen, 4971

nonassociation of aflatoxin, 3825

p53 mutations and carcinogens, 6185

transgenic mice carrying HIV tat gene, 6686

Locus

hprt
factors influencing mutation in T-cells, breast cancer, 6603

Lonidamine
hyperthermia and chemotherapy combination therapy, RIF-1 tumor, 5910

modulator of alkylating agent activity, 780

Lovastatin
inhibition of cell growth
independence of *ras* function, 712

inhibition of protein isoprenylation
dehydroepiandrosterone, colonic adenocarcinoma, 5653

synchronization of tumor and normal cells
G₁ to multiple cell cycles, 3602

Lung
carcinogenesis
bronchial epithelial cells, c-raf-1 and c-myc, 3793

colonization capacity
motility factor receptor internalization, melanoma cells, 2699

epithelial cells
behavior of asbestos fibers, 4942

cyclic AMP-dependent protein kinase messenger RNA, 6699

human alveolar macrophages
down-regulation by interleukin 4, tumocidal state, 5526

human normal and tumor tissue
O⁶-methylguanine-DNA methyltransferase, 4131

inhibition of murine melanoma experimental metastasis
recombinant desulfatohirudin, 4549

liver carcinogenesis and
quantitative analysis, genetic susceptibility, 6299

4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone tumorigenesis
critical determinant, O⁶-methylguanine, 5557

inhibition by arylalkyl isothiocyanates, structure-activity relationships, 1846

modulation of uptake and metabolism by nicotine
4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone, 2009

spontaneous metastasis
renal adenocarcinoma, CGP 31362, 3741

squamous cell carcinoma
genetic susceptibility, relation to cigarette smoking dose, 5177

toxicity
cooxidation of cyclophosphamide, alternative pathway, 532

Lung neoplasms
4-aminobiphenyl-hemoglobin adducts
measurement of, cases and controls, 5219

-associated protein
development of new assay, cancer marker, 3838

differential expression
laminins A and C, 581

DNA ploidy and *ras* p21 expression, 6346

effect of different tumor types

resting energy expenditure, 6027

genetic approaches to study molecular basis of human cancer, 5015s

induction of cytokine messenger RNA and secretion
alveolar macrophages, blood monocytes, 857

modulation of tenascin expression
fibronectin, 4876

mouse pulmonary carcinogenesis, 450

neural cell adhesion molecule messenger RNA splicing patterns, 6019

non-small cell
altered HLA class I expression, c-myc, 2463

interleukin 2 and tumor necrosis factor- α , 3669

ras gene mutations, shortened survival, 4999

stage I prognostic indicator, nucleolar organizer regions, 4008

vinorelbine-loaded polymeric biodegradable implants, 5384

normal bronchial epithelium and cytogenetics, growth factors, 400

normal lung and
interleukin 4 receptor expression, 261

orthotopic human
irradiated nude rat model, 3274

p53 mutations and carcinogens, 6185

production of neuromedin B and its gene expression, 5205

small cell
antagonistic effect of aclarubicin, daunorubicin-induced cytotoxicity, 5093

c-kit protooncogene transcripts, 2416

different energy metabolism, magnetic resonance spectroscopy, 5160

galanin, Ca²⁺ mobilization, 1674

immunochemical detection, ganglioside in serum, 2879

inhibition of growth, bombesin analogues, 1798

β_1 integrin, 1065

myc family DNA amplification, combination chemotherapy regimens, 1708

non-P-glycoprotein-mediated multidrug resistance, 3345

¹⁸⁶Re radioimmunotherapy, nude mice, 676

sensitivity to cisplatin, metallothionein, 3237

stimulation of clonal growth, neuropeptides, 3621

specific inhibition of K-ras tumorigenicity, antisense RNA, 1744

surgically resected
cellular glutathione, thiol measurements, 4287

use of mentholated cigarettes, 6510

women, 4893

¹⁷⁷Lutetium
-labeled immunoconjugate
monoclonal antibody-based therapy, human tumor xenograft, 2889

LY256787
LY203728 and
human immune response, single and multiple dose clinical studies, 2286

SUBJECT INDEX TO VOLUME 51

Lymph node
 capture and growth of CD8⁺ and CD4⁺ T-cells, 3891
 direct intralymphatic injection ¹¹¹In-T101, cutaneous T-cell lymphoma, 688
 metastasis
 E-cadherin expression, squamous cell carcinoma, 6328
 malignant potential of cells, melanoma, 2029
 multidrug resistance gene product, colon carcinoma, 2720
 protective value of Ki-67, gastric cancer, 3503

Lymphoblastoid cell lines
 Epstein-Barr virus-carrying expression of class I MHC, 27

Lymphoblasts
 Molt-4
 cellular pharmacology, cyclopentyl cytosine, 3733

Lymphocytes
 circulating
 field-test validation of assay, DNA repair, 5786
 infiltration of ovarian malignant ascites tumor cytosis, 4257
in vivo
 in vitro LAK activity, exogenous interleukin 2, 2324
 pattern of DNA methylation, 3702
 peripheral
 α^2 -alkylguanine-DNA alkyltransferase, dacarbazine and fotemustine, 619
 proliferation
 protein kinase C modulation, 82
 tumor-infiltrating
 autotumor-reactive T cell clones, liver metastasis of gastric carcinoma, 6153
 cisplatin-containing chemotherapy and, epithelial ovarian cancer, 1934
 interleukin 2, renal cell carcinoma, 4199
 intraocular tumors, precursor CTL, 3153
 phenotype and functional activity, immunogenic and nonimmunogenic brain tumors, 2373
 T-cell receptor V β gene expression, primary and metastatic melanoma, 5565

Lymphoid cells
 chromosomal and growth factor abnormalities
 leukemia, 2494

Lymphokines
 consequences of "binding site barrier", 4776

Lymphoma
 avian cell lines
 N-glycolylneuraminic acid, gas chromatography-mass spectrometry, 1242
 B-cell
 Phase I immunotoxin trial, 4052
 -B leukemia
 monoclonal antibody SN10, internalization into cells, 2985
 Burkitt's
 epidermal growth factor receptors, 150

expression of class I MHC, 27
 nitrogen mustard sensitivity, DNA cross-links, 6550
 defective provirus form of HTLV-I, 4639
 deliverance of saporin comparative mixtures, bispecific (Fab')₂ antibodies, 2353
 development
 immature CD4⁻8⁺ cells, N-methyl-N-nitrosourea, 737
 diffuse large cell
 cell line establishment, 8;22 chromosomal translocation, 5392
 disseminated thymic idarubicin-monoclonal antibody conjugates, antitumor activity, 310
 glucocorticoid insensitivity production of factor, attenuation of lytic response, 5551

Hodgkin's
 patterns of DNA methylation, 3702
 immunotoxin prepared with blocked ricin
 therapeutic use, 6235
 insensitivity to cytolytic effects
 glucocorticoids, novel "slow death" phenotype, 5544
 karyotypic changes
 loss of prolactin dependency, 282
 murine BCL₁
 cancer dormancy, 5045
 non-Hodgkin's
 acquired immunodeficiency syndrome, 4743
 frequency and structure, t(14;18) major breakpoint regions, 3243
 rapid cell death by apoptosis induction by photodynamic therapy, 5993
 thymic
 differential expression, normal and mutated K-ras alleles, 5129
 staging, T-cell receptor β chain gene rearrangements, 1627

Lymphoma, B-cell
 Fab' and IgG-anti-CD22 immunotoxins
 antitumor activity, SCID mice, 5876
 molecular cloning of chromosomal breakpoint, 1574

Lymphoma, T-cell
 cutaneous
 direct intralymphatic injection, radio-labeled ¹¹¹In-T101, 688
 yttrium-90-labeled anti-Ly1 monoclonal antibody
 radiotherapy, 1883

Lymphomagenesis
 carcinogen-induced
 pim-1 transgenic mice, 958

Lymphosarcoma
 P1798 mouse
 truncated glucocorticoid receptor, 2786

Lyngbyatoxin A
 novel analogues
 cellular sensitization, *cis*-diamminedichloroplatinum(II), 2511

Lysis resistance factor
 glucocorticoid insensitivity, 5544, 5551

Lysosomes
 enzyme secretion
 drug-sensitive and multiple drug-resistant cells, 1996

lipid compositions of intracellular membranes
 rat liver nodules, 3774

localization and mechanism of uptake
 Nile blue photosensitizers, tumor cells, 2710

M

α_2 -Macroglobulin
 covalent binding to deglycosylated ricin A chain immunotoxins, 1482

Macromolecules
 consequences of "binding site barrier", 4776
 enhanced tumor uptake
 novel vasoactive interleukin 2 immunoconjugate, 2694

Macrophages
 activator CGP 31362
 therapy of spontaneous lung metastasis, renal adenocarcinoma, 3741
 alveolar
 cytokine messenger RNA, lung cancer, 857
 colony-stimulating factor
 biological and antitumor effects, mice, 2649
 human alveolar
 tumorigenic state, down-regulation by interleukin 4, 5526
in vivo murine tumor cell growth
 α -interferon-gelatin conjugate, 5532
 -like cells
 phorbol diester, human malignant histiocytosis, 5712
 monocyte-derived
 low-affinity Fc receptors, antibody-dependent tumor cell phagocytosis, 1117
 murine
 Photofrin uptake, 2251

Mafosfamide
 potentiation of cytotoxic action
 N-isopropyl-p-formylbenzamide, 4170

Magnetic resonance imaging
 self-diffusion of water
 multicellular spheroids, 4072

Magnetic resonance spectroscopy
 different energy metabolism
 small cell lung cancer, 5160
¹⁹F
 5-fluorouracil metabolism, RIF-1 tumors and liver, 1384

Major histocompatibility complex
 class I
 Epstein-Barr virus-carrying lymphoblastoid cell lines, Burkitt lymphoma cells, 27
 interferon- α , peripheral blood mononuclear cells and plasma, 652
 class I and II
 survival, colorectal carcinoma, 729
 frequent down-regulation of class I antigen expression
 individual micrometastatic carcinoma cells, 4712
 H-2K β gene expression
 lectin-binding cells, BL6 melanoma cells, 5212

SUBJECT INDEX TO VOLUME 51

interferon-blocked cell-mediated cytotoxicity
melanoma, 3159
reduced tumorigenicity of murine tumor cells
 γ -interferon secretion, nonspecific host responses, 1185
yttrium-90-labeled anti-Ly1 monoclonal antibody
radiotherapy, graft-vs-host disease, 1891

Malignancy
accessible sugar epitopes
colon cancer-associated mucins, monoclonal antibody AM-3, 5342
-associated hypercalcemia
dysregulation, parathyroid hormone-like peptide expression, 6521
behavior and resistance to cisplatin
ovarian carcinoma xenografts, different disease stages, 6358
characterization of multidrug resistance fluorescent dyes, 4665
components of fibrinolysis pathways
neoplastic and nonneoplastic breast tissue, 354
cytotoxic effect of *cis*-parinaric acid, 6144
cytotoxicity
antagonists of platelet activating factor, 43
developmental genetics and childhood cancer, 5435
DNA ploidy and *ras* p21 expression
lung cancer, 6346
effect of different tumor types
resting energy expenditure, 6027
elimination of $V\beta 2$ bearing T-cells
preneoplastic and neoplastic mammary lesions, 3331
expression of cathepsin L in human tumors, 1478
fibrinogen deposition
no thrombin generation, primary breast cancer, 349
frequent induction of mammary carcinoma
neu oncogene transfer, 5649
growth factor messenger RNA expression
human breast fibroblasts, benign and malignant lesions, 4978
individual foci of prostate cancer
DNA ploidy, image analysis, 4084
interleukin 6 and nonhematopoietic cell lines
interactions, 3862
metastatic
Phase I trial, natural human interferon β , 836
metastatic cell phenotype
invasion, reconstituted basement membrane matrix, 3624
monoclonal antibody-*Vinca* alkaloid immunconjugate
solid tumor membrane antigen, antigen-antibody complexes, 2965
mutant p53 expression in melanoma, 5976
new developments in clinical oncology, 5060s
nonrandom chromosome losses

stepwise neoplastic transformation, uroepithelial cells, 3323
origin and development of cancer
cellular adaptation, 2751
potential of cells
lymph node or brain metastases, melanoma, 2029
prognostic significance
argyrophilic nucleolar organizer regions, 5339
protein core of mucin molecule
cytotoxic T-lymphocytes, breast adenocarcinoma, 2908
response durations and resistant disease mathematical model, 1210
transformation of human fibroblasts
increased activity, receptor-bound plasminogen activator, 1221
wild type or mutant p53 proteins
alterations, tumor development, 5232

Mammalian cells
DNA damage
193-nm radiation, 288
fjord- and bay-region diol epoxides
SOS induction, *Escherichia coli*, 1659
induction of heme oxygenase, 974

Mammary gland
apomucins
relationship, pancreatic apomucin, 1026
epithelial cell transformation
cripto gene, 1051
inhibition of chemical carcinogenesis
dietary dehydroepiandrosterone, 481
localization
basic fibroblast growth factor, transforming growth factor- β_1 , 4685

Mammary neoplasms
adenocarcinoma-derived
glucocorticoid growth suppression response, dominant transacting factors, 6031
composition of glycolipids
Had-1, cell growth inhibition by lactosylceramide, 1701
dietary modulation of proviral expression, 5123
7,12-dimethylbenz(a)anthracene-induced DNA adducts, inhibition by dietary selenite, 4613
hepatic metabolism, 492
histopathology
H-ras oncogene, 3762
hormone-dependent and hormone-independent Grunder strain mouse comparison, estrogen receptors, 3843
hyperthermia and *cis*-diamminedichloroplatinum(II)
radiation, 707
metastasis
prostaglandin E₂ receptors, 2047
modulation of alkylating agents
etanidazole, fluosol-DA/carbogen, 1086
preneoplastic and neoplastic lesions
elimination, $V\beta 2$ bearing T-cells, 3331
prevention
conjugated dioenoic derivative of linoleic acid, 6118
suppressor gene and its site of action, 1591
tumor subpopulation interactions

melphalan sensitivity, 4378
Mannitol
radiation-induced fibrosarcoma-1 tumor metabolism
blood flow, nuclear magnetic resonance, 3108
Mast cells
synergistic reduction of interleukin 3 phorbol ester, activated H-ras, 632

Mathematical models
population ecology issues in tumor growth, 2542
response durations
amount of subclinical resistant disease, 1210

Matrigel
transplantation of human prostatic carcinoma nude mice, 3814

MCF-7 cells
antineoplastic drug sensitivity
 α class glutathione S-transferase gene, 587
estradiol-stimulated growth
block by interleukin 1 α , 1488
estrogen ablation
programmed cell death during regression, 162
growth
1,25-dihydroxyvitamin D₃, platinum drugs, 2848

Medroxyprogesterone
androgen and EM-170
estradiol-stimulated growth, breast tumors in athymic mice, 3131

Medulloblastoma
infrequent p53 gene mutations, 4721

Megakaryoblastic cells
induction of differentiation by protein kinase inhibitors
Abelson murine leukemia virus, recombinant SV40 retrovirus, 4649

Melanocyte
growth
protein kinase C down-regulation, 3281

Melanocytic neoplasms
role of ultraviolet radiation
hairless mice, 4964

Melanoma
antigen vaccine
lack of effect of cyclophosphamide, immunogenicity, 3643
-associated antigens
differential expression, acral lentiginous melanoma and nodular melanoma lesions, 1726
-associated proteoglycan antigen
monoclonal anti-idiotypic antibodies, 3183
augmented binding
radiolabeled monoclonal antibodies, 2768
cancer cachexia syndrome
leukemia-inhibitory factor, 6656
cell adhesion to cytokine-activated endothelial cells
correlation, VLA-4 expression, 2239

cell variants
high and low levels of CD44, 6660
class I MHC enhancement
interferon- α , peripheral blood mono-

SUBJECT INDEX TO VOLUME 51

nuclear cells, 652
 -endothelial cell interactions
 tumor-derived interleukin 1, 4768
 fresh human tissue in mice
 growth and metastasis, SCID, 4937
 growth
 local effect, ultraviolet radiation, 4176
 psoralen plus ultraviolet A radiation, 5893
HLA-A2 antigen
 T-cell recognition, 3164
human malignant
 loss of heterozygosity for loci, long arm of chromosome 6, 5449
interferon-blocked cell-mediated cytotoxicity
 5-fluorouracil, 3159
interleukin 1 receptor
 interleukin 1 α and etoposide, 769
malignant
 induction, growth factor RNA expression, 4815
 ionizing radiation, tissue-type plasminogen activator, 5587
 serum levels, circulating intercellular adhesion molecule 1, 5003
malignant potential of cells
 lymph node or brain metastases, 2029
metastases
 inflammation, immunization with haptenized tumor cells, 2731
 modulation of cells by interleukin 4
 γ -interferon and α -tumor necrosis factor, 2002
 motility factor receptor internalization
 lung colonization capacity, 2699
murine
 experimental metastasis, recombinant desulfatohirudin, 4549
 successful treatment, bryostatin 1, 682
mutant p53 expression, 5976
novel gene sequences
 molecular subtraction, 1418
platelet aggregation, 1286
practical spontaneous metastasis model
 therapeutic studies, 2837
predominance of metastatic phenotype
 somatic cell hybrids, 6292
primary and metastatic
 tumor-infiltrating lymphocytes, T-cell receptor V β gene expression, 5565
primary human
 invasive and growth factor-independent cell variants, 2205
sensitization to cytotoxic effect of melphalan
 ethacrynic acid, 94
Sinclair swine cutaneous
 natural history of, influence of estrogens, 2025
spermidine/spermine N¹-acetyltransferase activity, 3715
spontaneous metastasis
 interferon-induced inhibition, natural killer and T-cells, 1124
 suppression in SCID mice, antibody to epidermal growth factor receptor, 2193
superficial metastatic
 interstitial hypertension, 6691
 tenascin secretion, 4853
 transcription of interleukin 1 gene

monocytes, 3334
 uveal
 hormonal and reproductive factors, women, 1370
xenografts
 cellular radiation sensitivity, local tumor control, 4609
Melanoma, B16
 B16-F1
 autocrine motility factor, receptor, 3507
 metastasis to "artificial organ" implant, 2444
 metastatic potential
 inhibitory effect, N,N,N-trimethyl-sphingosine, 6138
Melanoma-associated antigen
 H-2K^b gene expression
 lectin-binding cells, BL6 melanoma cells, 5212
 mimicry
 anti-idiotypic antibody, 6045
 mouse anti-idiotypic monoclonal antibody TK7-371, 4790
Melphalan
 carmethylzole
 in vivo and in vitro evaluation, 4581
 -resistant human rhabdomyosarcoma xenograft
 therapeutic analysis, 3906
 -resistant multiple myeloma
 development of cell line, 995
 sensitivity
 tumor subpopulation, palpable mouse mammary tumors, 4378
 sensitization of melanoma cells to cytotoxic effect
 ethacrynic acid, 94
Membrane proteins
 platelet aggregation
 human melanoma cell line, 1286
Membrane vesicles
 endothelial cell
 study of organ preference, metastasis, 394
Meningioma
 sporadic
 structure and expression, c-sis gene, 4295
Menthol
 cigarettes
 lung cancer risk, 6510
6-Mercaptopurine
 intrathecal
 preclinical pharmacology, Phase I/II trial, 6079
Mesenchyme
 -induced changes
 neoplastic characteristics, Dunning prostatic adenocarcinoma, 4924
Mesothelial cells
 transformation
 trisomy, rat chromosome 1, 4059
Mesothelioma
 malignant
 cigarette smoking, asbestos exposure, 2263
 genetic alterations, p53 gene, 5410
Metalloproteinases
 inhibitor
 inhibition of tumor invasion, smooth muscle cell layers, 2151
tissue inhibitor
 collagenase activity, metastatic tumor cells, 2138
Metallothionein
 dexamethasone-induced suppression, cis-diamminedichloroplatinum(II) resistance, 893
 sensitivity to cisplatin
 small cell lung cancer cell lines, 3237
Metaplasia
 furan-induced cholangiofibrosis rats, 5752
Metastasis
 accumulation of genetic alterations
 progression, primary breast cancer, 5794
 B16 melanoma
 "artificial organ" implant, 2444
breast cancer
 bone, localization of parathyroid hormone-related protein, 3059
 breast cancer progression
 maintenance, p53 alterations, 2605
carcinoid tumors
 transgenic mice, 4917
CD44 splice variants
 tumor cell lines, 5292
colon carcinoma cells
 insulin-like growth factor I, tyrosine phosphorylation, 5859
colorectal
 hepatic cryosurgery, 6323
colorectal carcinoma
 endogenous lactose-binding lectin, 387
 decreased expression of tissue inhibitor metalloproteinases, collagenase activity, 2138
enhanced promoter activity
 human M, 72,000 type IV collagenase gene, 6190
frequent down-regulation of MHC class I antigen expression
 individual micrometastatic carcinoma cells, 4712
growth and
 fresh human melanoma tissue, SCID mice, 4937
hepatic
 interleukin 2 liposomes, anti-CD3-stimulated T cells, 2127
human carcinoma
 HLA-A, -B, -C antigen expression, 6372
inhibition of cancer cell attachment to endothelium
 peptide G, 5672
inhibition of platelet aggregation
 monoclonal antibody, colon adenocarcinoma, 921
inhibition of tumor growth by tumor mass, 2
liver
 autotumor-reactive T cell clones, tumor-infiltrating lymphocytes, 6153
3LL variants
 differential expression, transforming growth factor- β 1 gene, 5491
lung
 murine renal adenocarcinoma, CGP 31362, 3741
lymph node
 E-cadherin expression, squamous cell

SUBJECT INDEX TO VOLUME 51

carcinoma, 6328
 gastric cancer, protective value of Ki-67, 3503
 local tumor aggressiveness and P-glycoprotein, colon carcinoma, 2720
 lymph node or brain
 malignant potential of cells, melanoma, 2029
 lysis
 cytokerine-activated vascular endothelial cells, 245
 macrophage colony-stimulating factor
 biological and antitumor effects, mice, 2649
 malignancy
 Phase I trial, natural human interferon β , 836
 malignant behavior and resistance to cis-platin
 ovarian carcinoma xenografts, 6358
 malignant cell phenotype
 invasion, reconstituted basement membrane matrix, 3624
 malignant metastatic cell phenotype
 invasion, reconstituted basement membrane matrix, 405
 mammary tumor
 prostaglandin E₂ receptors, 2047
 melanoma
 suppression with antibody to EGF receptor, 2193
 tumor-infiltrating lymphocytes, T-cell receptor V β gene expression, 5565
 murine melanoma
 recombinant desulfatohirudin, 4549
nm23-H2 gene, 445
 phenotype predominance
 somatic cell hybrids, murine melanoma, 6292
 poor short term prognosis in gastric cancer
 erbB-2 protein, 1034
 potential of murine B16 melanoma cell line
 inhibitory effect, *N,N,N*-trimethyl-sphingosine, 6138
 potential progression marker
 high mobility protein I(Y), prostate cancer, 606
 practical spontaneous model
 therapeutic studies, human melanoma, 2837
 production of large amounts of hydrogen peroxide
 human tumor cells, 794
 prognosis in breast cancer
 estrogen receptor, progesterone receptor and 1,25-dihydroxyvitamin D₃ receptor, 239
 pulmonary adenocarcinoma
 urokinase-type plasminogen activator, 3522
 rat mammary adenocarcinoma
 coexpression of cytokeratins, myoepithelial and luminal cell lines, 5943
 renal cell carcinoma
 common regions of deletion, chromosomes 5q, 6q, 10q, 5817
 significance of *int-2/hst-1* coamplification
 esophageal squamous carcinoma, 1504
 spontaneous

interferon-induced inhibition, natural killer and T-cells, 1124
 study of organ preference
 endothelial cell membrane vesicles, 394
 suppression of metastatic ability
 genetic factors, prostatic cancer, 3788
 tumor-induced angiogenesis
 inhibition, sulfated chitin derivatives, 22
 tumor invasion and
 positive and negative regulation, 5054s
 urokinase-type plasminogen activator
 inhibition by antibodies, tumor dissemination, 274
Metastatic potential
 differential release of proteinase inhibitors
 mammary adenocarcinoma variants, 1318
 enhancement by γ -interferon, 4020
 substrate dependence of cell motility and attachment
 Dunning R-3327 rat prostatic adenocarcinoma model, 6580
Methionine enkephalin
 enhancement of colon carcinogenesis azoxymethane, 785
Methotrexate
 efflux
 transport multiplicity, L1210 cells, 1412
 glycoprotein carrier
 K562 cells, 3420
 liver folate content and distribution
 choline deficiency, 16
 plasma homocysteine in children
 acute lymphoblastic leukemia, 828
 sensitivity
 increases in tumorigenicity, human fibroblasts, 1855
3-Methyladenine
 DNA glycosylase activity
 haloethylnitrosoureas, glial cell line, 1568
 urinary excretion in high-risk population
 stomach cancer, 190
3-Methyladenine DNA glycosylase II
 release of 7-alkylguanines
 modified DNA, 499
Methylenetetrahydrofolate polyglutamate diastereoisomers of 5-formyltetrahydrofolate
 cellular growth, HCT-8 cells, 3476
7-Methylguanine
 urinary excretion in high-risk population
 stomach cancer, 190
O⁶-Methylguanine
 critical determinant
 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanolone tumorigenesis, mouse lung, 5557
 enhanced repair of DNA adducts
 liver, *ada* gene, 3391
 sequence selective repair and conformation, 5843
O⁶-Methylguanine-DNA methyltransferase-deficient cells
 N-methyl-N-nitrosourea-induced mutations, shuttle vector plasmid, 6219
 human normal and tumor tissue
 brain, lung and ovary, 4131

messenger RNA levels in HT-29 cells streptozotocin/bis-chloroethylnitrosourea combination therapy, 1581
 production and characterization
 anti peptide antibodies, 3339
Methyl-*n*-amylnitrosamine
 hydroxylation
 positional specificity, cytochrome P-450 isozymes, 1059
4-(Methylnitrosamino)-1-(3-pyridyl)-1-butanolone
 lung tumorigenesis
 inhibition by arylalkyl isothiocyanates, structure-activity relationships, 1844
 metabolic activation measured by DNA alkylation
 inhibition by isothiocyanate, 4798
 metabolism and sister chromatid exchange
 modulation by vitamin A, 3946
 modulation of uptake and metabolism
 nicotine, hamster lung, 2009
 quantitation of microsomal α -hydroxylation, 5495
 tumorigenesis in mouse lung
 critical determinant, O⁶-methylguanine, 5557
1-Methyl-1-nitrosourea
 intraperitoneal injection
 dose-responsive induction, mammary gland carcinoma, 3411
N-Methyl-*N'*-nitro-*N*-nitrosoguanidine
 butylated hydroxyanisole and/or regression, forestomach lesions, 318
 deoxycorticosterone acetate-NaCl hypertensive rats
 enhanced induction, gastric carcinogenesis, 2863
 enhanced induction of gastric carcinogenesis
 low-protein diet, Wistar rats, 3493
 phenolic antioxidants
 forestomach carcinogenesis, 824
N-Methyl-*N*-nitrosourea
 -induced alkali-labile sites
 DNA sequences, heterogeneous repair, 775
 -induced mutations
 shuttle vector plasmid, O⁶-methylguanine-DNA methyltransferase-deficient cells, 6219
 thymocyte subset distribution and targets
 immature CD4⁺ cells, lymphoma development, 737
Methylthioadenosine phosphorylase
 absence of
 human gliomas, 3193
Mevalonate
 lipid compositions of intracellular membranes
 rat liver nodules, 3774
Mezerein
 differential activation and inhibition
 lymphocyte proliferation, 82
Micelle
 -forming polymeric anticancer drug
 toxicity and antitumor activity, solid tumors, 3229
Microscopy
 digitized imaging
 hyperthermia effects, cytosolic Ca²⁺, 359

SUBJECT INDEX TO VOLUME 51

Microsomes
 α-hydroxylation
 quantitation, 4-(methylnitrosamino)-1-(pyridyl)-1-butanol, 5495

Microspheres
 -bound chlorin e₆
 mechanism of photosensitization, bladder carcinoma cells, 4410

Milk epithelial cells
 loss of heterozygosity
 short arm of chromosome 11, 294

Milk fat globule protein M, 46,000
 human breast tumors, factor VIII-like domains, 4994

Minocycline
 angiogenesis inhibition, 672

Misonidazole
 indomethacin and
 radiotherapy, improvement in therapeutic ratio, 3639

Mistletoe
 lectin A-chain
 immunotoxin, 916

Mitochondria
 Adriamycin-induced damage in heart
 electron spin resonance, 3555
 disruption of cellular energy balance
 suramin, prostatic carcinoma, 6629
 lipid compositions of intracellular membranes
 rat liver nodules, 3774
 photosensitizing activities
 picket fence porphyrins, 1836
 structure and functions
 effect, antitumor diarylsulfonylureas, 6286

Mitomycin C
 hypoxic and aerobic cytotoxicity
 Chinese hamster V79 cells, 6622
 intravesical
 bladder wall penetration, 4347
 pharmacokinetics, bladder cancer, 5144
 KW-2149 antitumor activity, 110

pharmacodynamics
 bladder tumors, 3849
 porfiromycin and
 potentiation of antitumor activity, interleukin 1α, 5454

-resistant CHO cells
 aerobic conditions, DT-diaphorase deficiency, 1860

Mitosis
 HeLa cells
 progression of G₂ phase, phorbol esters and epidermal growth factor, 4328

Mitoxantrone
 urinary metabolites
 isolation and structure, 3427

MO-7e cells
 interleukin 3-dependent proliferation activation, late G₁ genes, 1741

Molt-4 cells
 inhibition of growth
 adenosine metabolite, 8-chloroadenosine 3',5'-monophosphate, 1600

Monensin
 lipid emulsion
 potentiation, ricin A chain immunotoxins, 4316

Monochlorobimane
 differential specificity for isozymes
 human and rodent glutathione S-transferases, 1606
 influence of glutathione S-transferases
 cellular glutathione determination, flow cytometry, 1783

Monoclonal antibodies
 3.2.3
 natural killer cells and, tissues from normal and tumor-bearing rats, 4931
 accessible sugar epitopes
 colon cancer-associated mucins, 5342
 anti-CD15
 elimination of breast cancer cells, bone marrow, 2451
 anti-fucosylceramide
 establishment and characterization, 4182
 anti-G_{M12}
 induction of necrosis, G_{M2}-rich cultures of glioma, 4643
 anti-idiotypic
 human high-molecular-weight melanoma-associated antigen mimicry, 4790
 induction of antigen-specific immune response, anti-carcinoembryonic antigen antibodies, 2599
 interleukin 2 production, colorectal cancer patients, 5425
 melanoma-associated proteoglycan antigen, 3183

B1 and B3
 reaction with mucinous adenocarcinoma, 3781
 -based therapy of human tumor xenografts
¹⁷⁷lutetium-labeled immunoconjugate, 2889

BCA 227
 tumor-associated antigen, breast carcinoma, 1537
 bifunctional and enzyme-conjugated antibodies
 pharmacokinetic analysis, two-step approaches, 3119
 bifunctional antibody
 hyperthermia, human colon tumor xenografts, 1515
 binary radiopharmaceutical delivery system
 bifunctional antibody, colorectal carcinoma, 6650
 bispecific F(ab')₂ antibodies
 delivering of saporin to lymphoma, comparative mixtures, 2353
 carcinoembryonic antigen-related human gastric gene product, 5694

c-erbB-2 protein
 cytotoxicity of cis-diamminedichloroplatinum, breast and ovarian tumor cell lines, 4575
 chemical engineering of A7 polyethylene glycol, targeting of cancer chemotherapy, 4310
 cloning of tumor-associated antigen folate binding protein, 6125
 colorectal carcinomaa-associated antigen, 926
 conjugation with drugs

induction of immunogenicity, 5774
 detection of DNA modifications
 cisplatin and carboplatin, 123
 direct radiolabeling
 generator-produced rhenium-188, radioimmunotherapy, 4594
 distribution in microscopic tumor nodules
 "binding site barrier", 4776

3E1.2
 breast tumor-associated epitope, N-glycolylneurameric acid, 5826

epidermal growth factor receptor
 suppression, spontaneous melanoma metastasis, 2193
 xenogen antitumor activity, drug immunoconjugates, 5471

F8 mediation of nonoxidative lysis polymorphonuclear leukocytes, neutrodermal tumor cells, 4865

folate-binding protein
 marker for ovarian cancer, 5329

high molecular weight melanoma-associated antigen mimicry, 6045

human thymidylate synthase
 cytoplasm, human cells and tissue, 6668

¹³¹I-chimeric mouse/human B72.3
 pharmacokinetics, immune response, 5461

idarubicin conjugates
 disseminated thymic lymphoma model, 310

identification of human colonic sulfomucin, 5728

immunoglobulin G2a
 intraperitoneal injection volume, antibody protein dose, 3434

immunohistochemistry and pharmacokinetics
 15A8-glycyl-tyrosyl-(N-ε-diethylenetriamine pentaacetic acid)-lysine, 5744

immunoneutralizing
 suppression of solid tumor growth, basic fibroblast growth factor, 6180

inhibition of growth of mouse leukemic cell lines
 interleukin 3 receptor-associated protein, 4355

inhibition of platelet aggregation and metastasis
 colon adenocarcinoma, 921

¹¹In-T101
 direct intralymphatic injection, cutaneous T-cell lymphoma, 688

internalization
 HER-2/neu gene product c-erbB-2, 5361

labeling with large amounts of ¹³¹I
 infusion, biodistribution and dosimetry, 5921

LY256787 and LY20378
 human immune response, single and multiple dose clinical studies, 2286

macrophage colony-stimulating factor
 biological and antitumor effects, mice, 2649

membrane-associated glycoprotein gp43
 human hepatocellular carcinoma, 2158

mouse tissues
 microdistribution, human tumor xenografts, 1529

SUBJECT INDEX TO VOLUME 51

mucin antigens
 human colon cancer cells, 331
NCC-ST-421
 antitumor effects, dimeric Le^a epitope, 2199
pan carcinoma CC49
 construction, binding properties, 6363
pancreatic cancer-reactive
 purified mucin, 372
PD41
 antigen restricted to prostate adenocarcinoma, 1326
P-glycoprotein-specific
 characterization, *MDR3* P-glycoprotein, 2628
PM-81
 breast cancer, elimination from bone marrow, 2451
positional specificity
 methyl-*n*-amylnitrosamine hydroxylation, 1059
proliferating cell nuclear antigen
 S-phase probes, flow cytometry, 4570
***Pseudomonas* exotoxin conjugates**
 therapy, cervical carcinoma, 4001
radioconjugates
 integrated microscopic-macroscopic pharmacology, 4821
radioiodination
 improved efficacy, *N*-succinimidyl-3-(tri-*n*-butylstannyl)benzoate, 4164
radiolabeled
 augmented binding to melanoma cells, 2768
radiolabeled antitumor
 intravesical administration, bladder carcinoma, 724
reactive to surface antigen
 ovarian epithelial cancer cells, 4012
recombinant/chimeric B72.3, 181
¹⁸⁶Re radioimmunotherapy
 small cell lung carcinoma xenografts, 676
sarcoma-associated antigens, 3768
SN10
 B leukemia-lymphoma, internalization into cells, 2985
specific and control
 uptake in subcutaneous xenografts, intratumor injection, 3251
TAG-72 epitopes
 colorectal cancer, 5378
three-step tumor targeting
 carcinoembryonic antigen-positive patients, 5960
-trichosanthin conjugate
 cytotoxicity, human hepatoma cells, 3353
TURP-27 and HNK-1
 neural cell adhesion molecules, prostate tumor-associated antigens, 2296
-Vinca alkaloid immunoconjugate
 solid tumor membrane antigen, antigen-antibody complexes, 2965
yttrium-labeled anti-Ly1
 radiotherapy, T cell lymphoma, 1883
 radiotherapy, graft-vs-host disease, 1891
Monocytes
 activated
 elevated phosphatidylserine expression, human tumor cells, 3062
blood
 cytokine messenger RNA, lung cancer, 857
-derived macrophages
 low-affinity Fc receptors, antibody-dependent tumor cell phagocytosis, 1117
 transcription of interleukin 1 gene
 human melanoma cells, 3334
Monokines
 down-regulation by interleukin 4
 tumocidal state, human alveolar macrophages, 5526
Monomitopyrenes
 carcinogenicity, 2902
Mononuclear cells
 peripheral blood
 class I MHC, interferon- α , 652
Monooxygenase
 flavin-containing
 P-450-catalyzed binding of tamoxifen to proteins, 6052
Monoterpene
 geraniol
 concentration-dependent increase, P388 and B16 doubling time, 37
MOPC-315
 advantages of adoptive chemoimmunotherapy
 polyethylene glycol-cultured spleen cells, 4516
Morphogenesis
 neural rosette formation within *in vitro* spheroids
 teratocarcinoma cell line, 2655
Morphometry
 human tumor cell line growth
 drug sensitivity, soft agar culture, 1247
sigma opioid receptors
 non-neural tumors, 6558
Motility factor
 receptor internalization
 lung colonization capacity, melanoma cells, 2699
Mouse mammary tumor virus
 suppression
 dietary restriction, normal parturition and lactation, 5123
Mouthwash
 use and oral conditions
 risk of oral and pharyngeal cancer, 3044
MS-073
 circumvention of multidrug resistance, 2420
Mucin
 antigen recognition by monoclonal antibodies
 human colon cancer cells, 331
 breast tumor-associated antigen
 monoclonal antibody 3E1.2, *N*-glycolylneuraminic acid, 5826
 colon cancer-associated
 accessible sugar epitopes, monoclonal antibody AM-3, 5342
 human colonic sulfomucin
 identification, specific monoclonal antibody, 5728
 -like carcinoma-associated antigen
 relative operating characteristic analysis, breast carcinoma, 1904
 -like glycoprotein

epiglycanin, immunosuppressive activity, 1170
protein core
 cytotoxic T-lymphocytes, breast adenocarcinoma, 2908
purified
 pancreatic cancer-reactive monoclonal antibodies, 372
Mucosa
 nasal
 metabolism of carcinogenic nitrosamines, diallyl sulfide, 1509
 nonfamilial neoplasia of large intestine rectal mucosal cell proliferation, 1917
 normal
 sex steroid and 1,25-dihydroxyvitamin D₃ receptors, 1227
Müllerian inhibiting substance
 inhibition of tumor growth, 2101
Multidrug resistance: *see also Drug resistance*
 buthionine sulfoximine effect
 toxicity, verapamil and doxorubicin, 67
 characterization of *MDR3* P-glycoprotein
 recognition, P-glycoprotein-specific monoclonal antibodies, 2628
 circumvention by MS-073, 2420
 daunorubicin-resistant Ehrlich ascites tumor cells
 decreased DNA topoisomerase II, 4213
etoposide and teniposide
 mechanisms, colon and lung carcinoma, 5275
expression of gene product
 tumor aggressiveness and lymph node metastasis, colon carcinoma, 2720
fluorescent dyes, 4665
gene in bone marrow
 chemotherapy and chemosensitization, transgenic mice, 5417
low level
 attenuated topoisomerase II content, Chinese hamster ovary cells, 6543
MDR1-mediated resistance
 camptothecin, human KB carcinoma cells, 6039
 modulation by cyclosporin A and verapamil
 human leukemia cell lines, 1749
non-P-glycoprotein-mediated
 small cell lung cancer, 3345
P-glycoprotein-mediated
 circumvention, SDZ PSC 833, 4226
phenotype
³¹P nuclear magnetic resonance, 2-deoxyglucose toxicity, 1638
 phenotype conferring selective resistance lipophilic antifolates, Chinese hamster ovary cells, 2949
protein kinase C activity
 trimetrexate resistance, lymphoblastic leukemia, 55
reversal with Solutol HS 15, 897
Muscle
 neural and striated cells
 CD56 and CD57, 1300
 -specific gene expression
 rhabdomyosarcoma, human fetal skeletal muscle development, 5100

SUBJECT INDEX TO VOLUME 51

Muscle, smooth
inhibition of tumor invasion
recombinant human metalloprotease inhibitor, 2151

MX2
cellular pharmacology
pleiotropic drug-resistant cells, 157

myc
activation in human lung carcinoma heterotransplantation, nude mice, 2566

DNA amplification in tumors and cell lines
combination chemotherapy regimens, small cell lung cancer, 1708

Myeloid cells
chromosomal and growth factor abnormalities
leukemia, 2494

Myeloma
immunoglobulin G
sugar chains, antibody-lectin enzyme immunoassay, 5888

multiple
melphalan-resistant, development of cell line, 995
no expansion of pre-B and B-cell compartments, bone marrow patients, 3224
predictive value, interleukin 6 and neopterin, 6250

Myoepithelial cells
luminal cell lines and coexpression of cytokeratins, rat mammary adenocarcinoma, 5943

N

Na⁺,K⁺-adenosine triphosphatase
accumulation of *cis*-diamminedichloroplatinum(II)
ovarian carcinoma cells, 3677

Nafenopin
role of oxidative stress
age-dependent hepatocarcinogenesis, 1789

Na⁺/H⁺ antiporter
modulation
rat neutrophil-mediated tumor cytotoxicity, 3212

Naloxone
enhancement of colon carcinogenesis
methionine enkephalin, azoxymethane, 785

National Cancer Institute
roundtable on prostate cancer
future research directions, 2498

Natural cell
-mediated cytotoxicity
increased immunogenicity and sensitivity, ultraviolet radiation, 5153

Natural killer cells
-associated antigens CD56 and CD57
human neural and striated muscle cells, 1300

biological monitoring
low-dose interleukin 2, cytokines and cell surface phenotypes, 6312

interferon-induced inhibition
spontaneous metastases, melanoma, 1124

monoclonal antibody 3.2.3 and

tissues from normal and tumor-bearing rats, 4931

phenotype and function
bronchogenic carcinoma, 5596

target molecules
transformation, oncogene-transfected fibroblast, 4250

Navelbine
pharmacokinetic and preliminary metabolic fate
high performance liquid chromatography, 2073

Necrosis
induction by anti-G_{M12} monoclonal antibodies
G_{M2}-rich cultures, human glioma cell line, 4643

Neoplasia
breast and colon
β1-6 branched oligosaccharides, tumor progression, 718

stepwise
nonrandom chromosome losses, uroepithelial cells, 3323

transforming gene
reticulum cell sarcoma, 744

Neoplastic progression
origin and development of cancer
cellular adaptation, 2751

Neoplastic transformation
hormonal carcinogenesis, 3626

immortalization of normal bronchial epithelial cells
human papillomaviruses 16 or 18, 5370

induction of growth factor RNA expression
human malignant melanoma, 4815

oncogenic mechanisms
radiation-induced cancer, 2740

Neopterin
interleukin 6 and
predictive value, multiple myeloma, 6250

Nerve growth factor
-like protein
paracrine interactions, human prostate, 3304

Nervous system
developmental genetics and childhood cancer, 5435

Neural cell adhesion molecule
messenger RNA splicing patterns
lung cancer cell lines, 6019

monoclonal antibodies
prostate tumor-associated antigens, 2296

Neuroblastoma
accumulation of *m*-iodobenzylguanidine
independent uptake and storage mechanisms, 4342

cell differentiation
inducible expression, calyculin, 1733

childhood
models to predict outcome, ferritin and tumor histology, 1426

chimeric anti-G_{D2} antibody-mediated lysis, 144

differential expression
bcl2 protooncogene, 6529

differentiation induced by interferon retinoic acid, dibutyryl cyclic adeno-

sine 3'-5'-monophosphate, 3958

DNA amplification and rearrangement
N-myc gene region, 1946

DNA ploidy index and *N-myc* genomic content, 33

effects of 6-hydroxydopamine and hydrogen peroxide
ascorbic acid, DNA strand-breaks, 6060

expression of *N-myc*, 6338

low frequency of *ras* gene mutations, 1596

primary
undifferentiated phenotype and prognosis, *N-myc* and *c-sar* protooncogenes, 3148

Neuroectodermal neoplasms
low frequency of *ras* gene mutations, 1596

nonoxidative lysis
polymorphonuclear leukocytes, monoclonal antibody, 4865

primitive
loss of heterozygosity, 6q/16q/17p, 639

Neuroectodermal tissue
preferential expression
dbl protooncogene, 4234

Neurofibromatosis
hamster model
N-nitroso-*N*-ethylurea, early lesion, 434

Neurogenesis
rosette formation within *in vitro* spheroids
teratocarcinoma cell line, 2655

Neuromedin B
production and gene expression
human lung tumor cell lines, 5205

Neuropeptides
stimulation of clonal growth
small cell lung cancer, 3621

Neurotensin
stimulation of clonal growth
small cell lung cancer, 3621

Neutrophils
granulocyte colony-stimulating factor
conjugation with polyethylene glycol, pharmacokinetics, 3710
-mediated tumor cytotoxicity
modulation by Na⁺/H⁺ exchange, 3212

Nickel(II)
-dependent damage by hydrogen peroxide
DNA bases, human chromatin, 5837

Nicotine
modulation of uptake and metabolism
4-(methylnitrosamino)-1-(pyridyl)-1-butanone, hamster lung, 2009

NIH-3T3 cells
confluence-mediated progression heterogeneity, 1003

H-ras-transformed
antipain-induced suppression, oncogene expression, 4810

induction of cisplatin resistance
c-Ha-ras, 5903

Nile blue
photosensitizers
lysosomal localization and mechanism of uptake, tumor cells, 2710

SUBJECT INDEX TO VOLUME 51

Nitrate
N-nitrosodimethylamine and elevated formation in woodchucks, hepatitis virus infection, 3925
plasma concentrations
 antitumor effect, flavone-8-acetic acid and analogues, 77
 urinary excretion in high-risk population stomach cancer, 190
Nitric oxide
 differential synthesis platelet aggregation, colorectal adenocarcinoma, 6073
 lysis of tumor cells cytokine-activated endothelial cells, 2531
Nitroalkanes oxidative damage to liver, 3143
N-(4-(5-Nitro-2-furyl)-2-thiazolyl)formamide
H-ras mutations bladder tumors, 3471
Nitrogen mustard sensitive Burkitt's lymphoma cell lines DNA cross-links, cell cycle and apoptosis, 6550
 single strand construction, human shuttle vector, 2268
Nitropyrene metabolic activation and inactivation liver, species differences, 3919
 structurally related compounds and carcinogenicity, female rats, 2902
4-Nitroquinoline-*N*-oxide promoting effect of snuff, 4388
Nitrosamine carcinogenic metabolism by nasal mucosa, diallyl sulfide, 1509
 chronic ingestion in rodents, 6470
 -induced cancer sequence selective repair and conformation, *O*⁶-methylguanine, 5843
 -induced pancreatic cancer inhibitory effect, RC-3095 and RC-160, 5980
9-Nitro-20(S)-camptothecin *c-jun* expression human myeloid leukemia cells, 6636
***N*-Nitrosobenzylmethylamine** carcinogenesis inhibitory effects of phenethyl isothiocyanate, rat esophagus, 2063
***N*-Nitrosobis(2-oxopropyl)amine** high-fat diet and patterns of prostatic cancer testosterone, 4757
***N*-Nitrosodiethylamine** *N*-nitrosodimethylamine and mechanistic and statistical insight, large carcinogenesis bioassays, 6409
 tumor induction, liver and esophagus, 6452
***N*-Nitrosodimethylamine** chronic ingestion detailed dose-response study, 6415
 nitrate and elevated formation in woodchucks, hepatitis virus infection, 3925
***N*-Nitroso-*N*-ethylurea** -induced hamster neurofibromatosis model

early lesion, 434
***N*-Nitrosoproline** urinary excretion in high-risk population stomach cancer, 190
Nitrous oxide maternal and perinatal risk factors childhood leukemia, 3696
Nocardia rubra cell wall skeleton antitumor effect, syngeneically transplanted P388 tumors, 4038
 cell wall skeleton and interleukin 2 synergistic effect, LAK cell induction, 5261
Nonneuronal neoplasms *sigma* opioid receptors, 6558
Norepinephrine enhanced induction of gastric carcinogenesis
N-methyl-*N'*-nitro-*N*-nitrosoguanidine, 3493
Norethindrone scattering of silver-stained nucleolar organizer regions Ishikawa cells, 5987
Norway survival and causes of death thyroid cancer, 1234
Novantrone modulation of effects by caffeine, 3682
Novobiocin 2,4-dinitrophenol and modulation, amsacrine-induced DNA lesions, 573
 Phase I clinical trial, 510
NR6 cells enhanced tumorigenesis non-downregulating epidermal growth factor receptors, 6170
NSC 628503: see Taxotere
Nuclear envelope differential expression of laminins A and C differential expression, lung cancer cell lines, 581
Nuclear magnetic resonance
³¹P multidrug resistance phenotype, 1638
³¹P and ²H tumors growing in irradiated bed, angiogenesis, 3289
 tumor metabolism *ex vivo* model, Morris hepatoma 7777, 841
Nuclear magnetic resonance spectroscopy
¹⁹F intratumoral metabolism, 5-fluorouracil, 5806
 intratumoral metabolism 5-fluorouracil, 5821
¹⁴N tumors, 3378
 pH-dependent uptake 5-fluorouracil, 5770
phosphorus cellular energetics, multicellular tumor spheroids, 3831
 radiation-induced fibrosarcoma-1 tumor metabolism blood flow, glucose and mannitol effects, 3108
Nuclear matrix proteins

cancer and normal rat prostate, 6514
Nucleic acid adducts stereoselective formation, 2,3-epoxy-4-hydroxy-*nonanal*, 137
Nucleolar antigens
P120 prognostic significance, breast carcinoma, 1973
Nucleolar organizer regions argyrophilic prognostic significance, esophageal carcinoma, 5339
 prognostic indicator stage I non-small cell lung cancer, 4008
 silver-stained norethindrone, Ishikawa cells, 5987
Nucleotides major alterations in structure DNA, cancer of female breast, 5430
 metabolism in CCRF-CEM cells (6R)-5,10-dideaza-5,6,7,8-tetrahydrofolic acid, 2291
uridine regulation of deoxycytidine kinase, human leukemia cells, 2559

O

Obesity body fat distribution and endometrial cancer, 568
Okadaic acid differential activation and inhibition lymphocyte proliferation, 82
Oligodeoxynucleotides antisense inhibition of protooncogene expression, 4505
c-myb antisense inhibition of proliferation, colon adenocarcinoma, 2897
Oligonucleotide phosphorothioate antisense inhibition of *c-myc* expression, breast cancer growth, 3996
Oligosaccharides, β 1-6 branched marker of tumor progression breast and colon neoplasia, 718
Oltipaz protection aflatoxin B₁-induced hepatocarcinogenesis, 5501
Oncogenes
c-erbB-2 estrogen receptor status and, prognostic significance in breast cancer, 3296
gp185, antigen shed from mouse tumors, 2593
c-Ha-ras induction of resistance to cisplatin, mouse NIH 3T3 cells, 5903
 tumorigenic clones, epidermal morphogenesis and keratin expression, 4402
c-myc gene-induced alterations protein kinase C expression, 5514
 differential expression transforming growth factor- β 1 gene, 3LL metastatic variants, 5491

SUBJECT INDEX TO VOLUME 51

erbB2 accumulation of genetic alterations, progression of primary breast cancer, 5794 immunoreactivity, gastric cancer, 1034 expression in irradiated rat colon *Bowman-Birk protease inhibitor*, 4539

HER-2/neu amplification, primary breast cancer, 944 normal bronchial epithelium, lung cancer, 400

hormonal carcinogenesis, 3626

H-ras antipain-induced suppression, NIH3T3 cells, 4810 histopathology, salivary and mammary gland tumors, 3762 induction of invasive phenotype, papillary transitional cell carcinoma cells, 4486 inhibition, adeno-associated virus Rep78, 3373 mutations, bladder tumors, 3471 phorbol ester, interleukin 3 requirement in mast cell line, 632 sequence selective repair and conformation, O⁶-methylguanine, 5843 inhibition of protooncogene expression antisense oligodeoxynucleotides, 4505

K-ras activation, premalignant and malignant epithelial lesions of the uterus, 5308 loss of heterozygosity on 6q/16q/17p central nervous system primitive neuroectodermal tumors, 639 mechanisms in radiation-induced cancer, 2740 mouse pulmonary carcinogenesis, 450

myc activation lung carcinoma, heterotransplantation, 2566

neu frequent induction, mammary carcinoma, 5649

N-myc DNA ploidy index, neuroblastoma, 33 nuclear growth factors, hormone-related tumors, 4114 origin and development of cancer cellular adaptation, 2751 overexpression of products tumor progression without parenchymal infiltration, brain, 3595

pim-1 carcinogen-induced lymphomagenesis, transgenic mice, 958

ras staging of T-cell receptor β chain gene rearrangements, thymic lymphoma, 1627 transformed fibroblasts, Thy-1 as negative growth regulator, 99

ras or myc 2-aza-2'-deoxycytidine, nontumorigenic fibroblasts, 324

ras p21 expression DNA ploidy, lung cancer, 6346

SV40 DNA in milk epithelial cells loss of heterozygosity, short arm of

chromosome 11, 294 transfected fibroblast transformation, natural killer target molecules, 4250 transformed rat fibroblasts growth inhibition, cocultured normal cells, 5348

v-Ha-ras *in situ* transfer, carcinoma induction, 2642 mammary carcinoma suppressor gene, mammary epithelial cells, 5298

Oncogenesis platelet-derived growth factor autocrine transformation, 5087

Oncology clinical new developments, 5060s radiation past achievements, ongoing controversies, 5065 training in clinical research, 753

Oral neoplasms mouthwash use and oral conditions, 3044 promoting effect of snuff 4-nitroquinoline-N-oxide, 7,12-dimethylbenz(a)anthracene, 4388

Ornithine polyamine metabolism and dietary arginine restriction, two-stage epidermal carcinogenesis, 2932

Ornithine decarboxylase activation in tracheal epithelial cells asbestos and oxygen species, 167 heterogenicity mouse colon carcinogenesis, human colon tumors, 2069 inhibition of induction by phorbol 12-myristate 13-acetate prostratin, mouse skin, 5355

mucosal increased activity, gastric cancer, 1448 suppression of activity in the elderly supplemental calcium, adenomatous polyps, 3416 tumor promoter-induced activity tannic acid and other polyphenols, mouse epidermis, 2820

Osteopontin nonphosphorylated calcitonin induction, JB6 epidermal cells, 2144

Osteosarcoma human xenografts in nude mice inhibition of growth, suramin, 3585 thrombospondin binding mediation, platelet-osteosarcoma cell interaction, 2621

Oval cells hepatic foci, nodules and carcinomas antigenic relationship, hepatocarcinogenesis, 1308 progenitors cell lineages, liver development, 2611

Ovarian neoplasms antitumor activity of interferon- γ ascitic and solid tumor models, 6643 *c-erbB2* oncogene overexpression gp185, antigen shed from mouse tumors, 2593 coexpression of different antigenic mark-

ers CA 125 determinants, 468 development of monoclonal antibodies reactivity to surface antigen, 4012 *cis*-diamminedichloroplatinum(II) ionizing radiation and, resistance patterns, 4523

DNA damage platinum, titanium and ruthenium complexes, 2943

epithelial overexpression, mutation of p53, 2979 tumor-infiltrating lymphocytes, cisplatin-containing chemotherapy, 1934

folate-binding protein marker, 5329

frequent allelic losses and mutations *p53* gene, 5171

granulosa cell culture cell-cell communication, multistep transformation, 696

human allelotype, 5118 insulin-like growth factor I expression, binding proteins, 5107

monoclonal antibody against c-erbB-2 protein enhanced cisplatin cytotoxicity, 4575

P-glycoprotein expression DNA topoisomerase, platinum/cyclophosphamide chemotherapy, 5915 targeted T-cell antitumor responses host survival, murine xenograft model, 5716

transforming growth factor- α epidermal growth factor receptor autocrine growth mechanism, 5322, 5951, 5956

Ovary gonadal protection and fecundity rates cyclophosphamide-treated rats, 2124 hormones 2,3,7,8-tetrachlorodibenzo-p-dioxin, hepatocarcinogenesis, 1391 human normal and tumor tissue *O⁶-methylguanine-DNA methyltransferase*, 4131 malignancy ascites infiltrating lymphocytes, tumor cytosis, 4257

Ovine trophoblast protein-1 pregnancy recognition hormone antiproliferative activity, 5304

Oxidative stress protein induction mediated by porphyrin photosensitization, 6574

Oxygenation activation of ornithine decarboxylase tracheal epithelial cells, 167 carcinomas of uterine cervix, 6098 human tumors, 3316 tumor interstitial hypertension, carcinoma of uterine cervix, 6695

P

p21 histopathology of salivary and mammary gland tumors *H-ras*, transgenic mice, 3762

p21^{ras}

SUBJECT INDEX TO VOLUME 51

inhibition of protein isoprenylation
dehydroepiandrosterone, colonic adenocarcinoma cells, 6563

P53
chromosome 17p
hepatitis B virus integration event, hepatocellular carcinoma, 49
detection of aberrations
alleles and gene transcript, single-strand conformation polymorphism analysis, 3356
detection of gene mutations
primary gastric cancer, 3056
follow-up study of twenty-four families
Li-Fraumeni syndrome, 6094
frequent allelic losses and mutations
ovarian cancer, 5171
from gene to carcinogen
rapid evolution, field of molecular epidemiology, 3617
gene analysis
human uterine carcinoma cell lines, 6506
gene mutations
abnormal retinoblastoma protein, radiation-induced human sarcoma, 6393
Barrett's epithelium, esophageal cancer, 4495
gastric cancer metastases, 5800
primary human breast cancer, 6194
genetic alterations
malignant mesothelioma, 5410
genetic analysis of human esophageal tumors
high incidence geographic areas, 4102
germ line mutation in exon 5
extended cancer family, 6385
increased levels of expression
maturation, human hematopoietic cells, 4279
infrequent gene mutations
medulloblastoma, 4721
loss of heterozygosity
protein expression, colorectal carcinoma, 4436
maintenance of alterations
breast cancer progression, 2605
mutant expression in melanoma, 5976
mutations
allelic loss on chromosome 17p, endometrial carcinoma, 5632
carcinogens and, 6185
colorectal tumors, familial polyposis coli, 2874
human brain tumors, 6202
overexpression and, epithelial ovarian cancer, 2979
participation in cellular response
DNA damage, 6304
protein overexpression
17p allelic deletions, Barrett's adenocarcinoma, 5482
ras mutations and p53-heat shock protein complexes
human lung carcinoma cell lines, 4090
retinoblastoma genes and
aberrations, hepatocellular carcinoma, 5520
wild-type
mutant proteins or, alterations and tumor development, 5232

suppressed prostate cancer cell growth, mutant alleles, 4716

P120
prognostic significance in breast carcinoma, 1973

Pan carcinoma
monoclonal antibody CC49
construction, binding properties, 6363

Pancreas
differential binding and biological activities
epidermal growth factor, transforming growth factor- α , 6243
lipid-dependent proliferation, 3633

Pancreatic islet cell neoplasms
allelic loss on chromosome 11
familial multiple endocrine neoplasia type 1, 1154
glucagon gene expression
differential glucocorticoid regulation, 1196

Pancreatic neoplasms
apomucin
relationship, mammary and intestinal apomucins, 1026

Breast adenocarcinoma
protein core of mucin molecule, cytotoxic T-lymphocytes, 2908

Nitrosamine-induced
inhibitory effect, RC-3095 and RC-160, 5980

-reactive monoclonal antibodies
purified mucin, 372

Papilloma
skin
promoter independence, 1045

Papillomavirus
DNA in anal intraepithelial neoplasia anal cancer, 1014

human
role in human cancer, 5019s

Type 16
alteration of retinoid regulation by immortalization, ectocervical epithelial cell differentiation, 3982

transformed keratinocytes, extracellular matrix, 5967

Type 16-derived proteins L1 and E4
cervical secretions, HPV-related cervical disease, 4423

Type 16 or type 18
immortalization, normal bronchial epithelial cells, 5370

Paraneoplastic syndromes
squamous carcinoma and
epidermal growth factor receptor pathway, 2438

Parathyroid
allelic loss on chromosome 11
familial multiple endocrine neoplasia type 1, 1154

Parathyroid hormone
-like hormone peptide
localization, rat fetus, 6351

-like peptide expression and secretion
dysregulation, keratinocyte model of tumor progression, 6521

-related protein in breast cancer metastases
localization, incidence in bone, 3059

cis-Parinaric acid
cytotoxic effect

cultured malignant cells, 6144

Pazelliptine
ionizing radiation and
additive and supraadditive interaction, 3204

P388 cells
concentration-dependent increase in doubling time
acyclic monoterpene geraniol, 37

Pediatrics
developmental genetics and childhood cancer, 5435

high-dose oral leucovorin plus 5-fluorouracil
refractory cancer, 4871

Penclomedine
preclinical antitumor activity, 1979

Peptide G
laminin receptor complementary DNA deduced synthetic peptide
inhibition of cancer cell attachment, 5672

Peripherin
expression of N-myc
human neuroblastoma, 6338

Peritoneal carcinomatosis
cytotoxic effects of acoustic cavitation, 3024

Peritoneal cavity
intraperitoneal injection volume
antibody protein dose, immunoglobulin G2a κ , 3434

Peroxisomes
hepatocarcinogenesis by nafenopin
aged rats, 666

tumor necrosis factor/cachectin
decrease in catalase activity, rat liver, 3990

Perspectives in Cancer Research
acquired immunodeficiency syndrome
non-Hodgkin's lymphoma, 4743

carcinogenesis and cancer, 6215

genetic errors
cell proliferation, carcinogenesis, 6493

inhibition of protooncogene expression
antisense oligodeoxynucleotides, 4505

inhibition of tumor growth by tumor mass, 2

mutator phenotype
multistage carcinogenesis, 3075

origin and development of cancer
cellular adaptation, 2751

tumor transplantation and tumor immunity, 757

P-glycoprotein
daunorubicin-resistant Ehrlich ascites tumor cells
decreased DNA topoisomerase II, 4213

drug-sensitive and multiple drug-resistant cells
secretion, lysosomal enzymes, 1996

expression and DNA topoisomerases
platinum/cyclophosphamide chemotherapy, benign and malignant ovarian tumors, 5915

glutathione-based detoxifying enzymes
constitutive drug resistance, human colorectal tumors, 2092

inhibition of expression by Activin A
multidrug-resistant K562 cells, 2582

local tumor aggressiveness

SUBJECT INDEX TO VOLUME 51

lymph node metastasis, colon carcinoma, 2720

MDR3

- recognition, P-glycoprotein-specific monoclonal antibodies, 2628
- mediated multidrug resistance circumvention, SDZ PSC 833, 4226
- positive and -negative drug-resistant cell lines
- subcellular distribution, daunorubicin, 4955

pH

- L-ascorbic acid amplification bladder carcinogenesis, K₂CO₃, 2548

Phagocytosis

- antibody-dependent tumor cell low-affinity Fc receptors, monocytic-derived macrophages, 1117

Pharyngeal neoplasms

- mouthwash use and oral conditions, 3044

Phenethyl isothiocyanate

- inhibitory effects
- N-nitrosobenzylmethylamine carcinogenesis, rat esophagus, 2063

Phenobarbital

- liver tumor promotion
- protein kinase C translocation, 130

Phenolic antioxidants

- forestomach carcinogenesis
- N-methyl-N'-nitro-N-nitrosoguanidine, 824

Phenoxazine

- Nile blue derivatives
- photosensitization, bladder carcinoma cells, 1109

L-Phenylalanine mustard

- conjugation with glutathione
- specificity of isozymes, hepatic glutathione S-transferase, 2410
- intercellular transfer of drug resistance, 1190

Pheochromocytoma

- low frequency of ras gene mutations, 1596

Phorbol

- immunologic quantitation of TIMP-1 colon cancer, 6231

Phorbol ester

- induction of macrophage maturation
- human malignant histiocytosis, 5712
- activated H-ras
- interleukin 3, mast cells, 632
- differential activation and inhibition lymphocyte proliferation, 82
- elicited tumor promotion
- dietary fat, mouse skin, 907
- epidermal growth factor and progression of G₂ phase, mitosis of HeLa cells, 4328
- induced fos expression
- inhibition of cell proliferation, B859-35, 5821
- induced transformation of JB6 cells
- synergistic inhibition, transforming growth factor-β and retinoic acid, 1158
- specific defect
- protein kinase C translocation, hepatocytes, 130

Phorbol 12-myristate 13-acetate

ornithine decarboxylase

- inhibition of induction, prostratin, 5355
- stimulation of epithelial tumor cell motility
- tumor necrosis factor, 5315

Phosphatidylinositol-3 kinase

- associated p85α
- human gene, chromosome region 5q12-13, 3818

Phosphatidylserine

- elevated expression in outer membrane leaflet
- activated blood monocytes, human tumor cells, 3062

Phospholipase C

- recombinant membrane-acting immunotoxin, 465

N-(Phosphonacetyl)-L-aspartate

- sensitivity
- increases in tumorigenicity, human fibroblasts, 1855

Phosphorothioate

- antisense oligonucleotide
- inhibition of c-myc expression, breast cancer growth, 3996

Phosphorus-31

- nuclear magnetic resonance
- ex vivo model, tumor metabolism, 841

Photodynamic therapy

- porphyrin-mediated
- resistance, mouse tumor cells, 4243
- rapid cell death by apoptosis
- mouse lymphoma cells, 5993

Photofrin

- uptake by murine macrophages, 2251

Photoimmunotherapy

- human ovarian carcinoma cells, 4762

Photosensitization

- mechanism of
- microsphere-bound chlorin e₆, bladder carcinoma cells, 4410
- phenoxazine Nile blue derivatives
- bladder carcinoma cells, 1109
- picket fence porphyrins, 1836
- release of von Willebrand factor
- cultured human endothelial cells, 3261

Photosensitizers

- Nile blue
- lysosomal localization and mechanism of uptake, tumor cells, 2710

Phyllotinin

- like peptide
- production of neuromedin B, human lung tumor cell lines, 5205

Piroxicam

- chemoprevention of colon carcinogenesis, 4528

Plasma

- adhesive proteins
- platelet aggregation, human melanoma cell line, 1286
- class I MHC enhancement by interferon-α
- peripheral blood mononuclear cells, melanoma patients, 652

homocysteine in children

- methotrexate, acute lymphoblastic leukemia, 828

lipid and lipoprotein cholesterol changes

- weight changes, prior to cancer diagnosis, 3198

pharmacokinetics

- 1-β-D-arabinofuranosylcytosine, 1-β-D-arabinofuranosyluracil, 4141
- platelet-derived growth factor B-chain levels
- cancer patients, 4149

Plasmacytoma

- advantages of adoptive chemoimmunotherapy
- polyethylene glycol-cultured spleen cells, 4516

Plasmid

- reactivation in cisplatin-resistant cells, 601

Plasminogen

- activation system
- human colon cancer, 4067

Plasminogen activator

- receptor-bound
- malignant transformation, fibroblasts, 1221
- tissue-type
- induction by ionizing radiation, malignant melanoma cells, 5587

urokinase-type

- fibrinolysis pathways, neoplastic and nonneoplastic breast tissue, 354
- inhibition by antibodies, tumor dissemination, 274
- primary and metastatic tumors, pulmonary adenocarcinoma, 3522

Platelet activating factor

- antagonists
- cytotoxicity, human malignant cell lines, 43

Platelet-derived growth factor

- autocrine transformation, 5087
- B-chain levels
- cancer patients, 4149

Platelet factor 4

- analogue
- inhibition of tumor growth, angiostatic activity, 2077

Platelets

- aggregates
- differential nitric oxide synthesis, colorectal adenocarcinoma, 6073
- human melanoma cell line, 1286
- inhibitory effect of N,N,N-trimethyl-sphingosine, metastatic potential of B16 melanoma, 6138
- inhibition of aggregation
- monoclonal antibody, colon adenocarcinoma, 921
- osteosarcoma cell interaction
- thrombospondin binding, human osteosarcoma cells, 2621

β-Platelets

- derived growth factor receptor gene structure and expression, human tumor cell lines, 5626

Platinum

- cyclophosphamide chemotherapy
- P-glycoprotein expression, ovary, 5915
- 1,25-dihydroxyvitamin D₃ and growth of MCF-7 cells, 2848
- DNA adduct formation and removal
- cisplatin sensitivity, ovarian carcinoma, 4557

titanium and ruthenium complexes

- DNA damage, ovarian tumor cells, 2943

SUBJECT INDEX TO VOLUME 51

Platinum(II)
trisubstituted
antitumor agents, mechanistic studies, 1866

Pleiotropic drug
-resistant cells
cellular pharmacology, MX2, 157

P388 neoplasms
syngeneically transplanted
antitumor effect, *Nocardia rubra* cell wall skeleton, 4038

Podophyllotoxin
glucoside to etoposide
chemical and biological route, 5

Poly(adenosine diphosphate-ribose) polymerase
inhibition by thymidine and thymidine analogues
1,3-bis(2-chloroethyl)-1-nitrosourea, L1210 cells, 1586

Polyamine analogue
-induced increases in spermidine/spermine N^1 -acetyltransferase
polyamine pool deletion, melanoma, 3715

Polyamines
1,2-dimethylhydrazine-induced colonic carcinogenesis
modulation, dietary calcium and vitamin D, 5608

metabolism
dietary arginine restriction, two-stage epidermal carcinogenesis, 2932

Polyethylene esters
12-hydroxystearic acid
Solutol HS 15, reversal of multidrug resistance, 897

Polyethylene glycol
chemical engineering of monoclonal antibody A7
targeting of cancer chemotherapy, 4310

conjugation with granulocyte colony-stimulating factor
pharmacokinetics, 3710

-cultured spleen cells
advantages, adoptive chemoimmunotherapy for plasmacytoma, 4516

Polymeric implants
vinorelbine-loaded
local treatment, solid tumors, 5384

Polyoma virus
-transformed cells
Fc γ RII expression, 612

Polypeptide domains
synthetic, carcinoembryonic antigen, 1876

Polyphenols
tumor promoter-induced ornithine decarboxylase activity
mouse epidermis, 2820

Polyps
adenomatous
dietary calcium, colonic ornithine decarboxylase, 3416

Population ecology
issues in tumor growth, 2542

Porfiromycin
mitomycin C and
potentiation of antitumor activity, interleukin 1 α , 5454

Porphyrin
-mediated photodynamic therapy
resistance, mouse tumor cells, 4243

oxidative stress protein reduction, 6574

picket fence
photosensitizing activities, 1836

Positron emission tomography
fluorine-18 labeled progestin
progestin receptor positive tumors, 1930

Potassium chloride
inhibition of gastric carcinogenesis induction
deoxycorticosterone acetate-NaCl hypertensive rats, 2863

Pregnancy
maternal and perinatal risk factors
childhood leukemia, 3696

recognition hormone ovine trophoblast protein-1
antiproliferative activity, 5304

Preleukemic cells
induction by radiation leukemia virus, 2179

Procarbazine
potentiation of cytotoxic action of mafosfamide
N-isopropyl-*p*-formylbenzamide, 4170

Procarcinogens
drug-metabolizing enzymes
liver epithelial cells, 301

Progesterone
binding analysis of estrogen receptor
DNA target site, breast cancer, 3405

gonadal protection and fecundity rates
cyclophosphamide-treated rats, 2124

receptor bound to R5020 and RU486
DNA binding, 3938

Progesterin
evolution of resistance
human breast cancer cells, 2051

fluorine-18 labeled
progestin receptor positive tumors, positron emission tomography, 1930

regulation of alkaline phosphatase
breast cancer cell line, 4470

regulation of transforming growth factor gene expression
endometrial adenocarcinoma, 5476

Prolactin
loss of dependency
karyotypic changes, lymphoma cell cultures, 282

Proliferating cell nuclear antigen
antibodies
S-phase probes, flow cytometry, 4570

Prostacyclin
urinary excretion and degradation products
thromboxane, gestational choriocarcinoma, 4146

Prostaglandin E₂
arachidonate release from epidermal cells
4 β - and 4 α -12-O-tetradecanoylphorbol-13-acetate, 850

Prostaglandin synthetase inhibitor indomethacin
tumorigenesis, mammary carcinoma and diet, 2683

Prostate
neoplastic epithelial cell line and stromal cells
regulation of growth, nerve growth factor-like protein, 3304

normal rat
cancer and, nuclear matrix proteins, 6514

-specific antigen and α_1 -antichymotrypsin complex
prostatic cancer, 222

-specific antigen messenger RNA
hormonal regulation, prostatic adenocarcinoma, 3748

spontaneous transformation of fibroblasts
extracellular matrix, androgen receptor expression, 1910

Prostatic neoplasms
acceleration of growth *in vivo*
factors produced by prostate, bone fibroblasts, 3753

androgen-dependent and -independent γ -interferon, tumor necrosis factor- α , 2329

-associated antigens
monoclonal antibodies, neural cell adhesion molecules, 2296

biphasic action of androgens
anti-proliferative effects, EM-139, 5165

Dunning R3327 G model
androgen-primed chemotherapy, 1760

fatal
tobacco use, 3067

high-fat diet
N-nitrosobis(2-oxopropyl)amine, testosterone, 4757

high mobility protein I(Y)
potential progression marker, 606

hybrid human endogenous retrovirus calbindin, subtractive cloning, 4107

individual foci
image analysis, DNA ploidy, 4084

National Cancer Institute roundtable future research directions, 2498

nonproliferating androgen-independent programmed death, 4693

peripheral hormone levels
controls and patients, benign prostatic hyperplasia, 3445

primary
prevention of, *N*-(4-hydroxy-phenyl)retinamide, 3610

regulation of kinesin expression
type IV collagenase secretion, 5866

stimulation of apolipoprotein D secretion
inhibition of cell proliferation, 4336

suppressed growth by wild-type *p53* mutant *p53* alleles, 4716

suppression of metastatic ability genetic factors, 3788

Prostratin
inhibition of induction by PMA
ornithine decarboxylase, mouse skin, 5355

Protease
Bowman-Birk
oncogene expression, irradiated rat colon, 4539

tumor-associated trypsin
cancer cell-mediated degradation, ex-

SUBJECT INDEX TO VOLUME 51

tracellular matrix, 2107

Proteasome
changes in gene expression
renal cancer cells, 6677

Protein
galactoside-binding
molecular cloning, chromosomal mapping, 2173

Proteinase inhibitors
differential release
rat mammary adenocarcinoma variants, metastatic potential, 1318

Proteinases
tumor invasion and metastasis
positive and negative regulation, 5054s

Protein I(Y)
potential progression marker
prostate cancer, 606

Protein kinase
cyclic AMP-dependent messenger RNA
normal vs. neoplastic mouse lung epithelial cells, 6699

down-regulation of cdc2
senescent human and hamster cells, 6010

effects of 8-Cl-cAMP and N⁶-benzyl-cAMP
kinetics, HL-60 leukemia cells, 6263

inhibitors of differentiation
Abelson murine leukemia virus and SV40 retrovirus, mouse megakaryoblastic cell line, 4649

Protein kinase C
activator lyngbyatoxin A
cellular sensitization, *cis*-diamminedichloroplatinum(II), 2511

activity and multidrug resistance
lymphoblastic leukemia, trimetrexate resistance, 55

altered activity in biopsies
human colonic adenomas and carcinomas, 205

altered intracellular calcium regulation
colorectal cancer, "normal" adjacent mucosa, 4492

antitumor activity of UCN-01
murine and human tumor models, 4888

c-myc gene-induced alterations
myc-ras gene complementation, 5514

down-regulation
correlation with melanocyte growth, 3281

induction of agonist effects by staurosporine
maturation, normal and neoplastic keratinocytes, 4677

inhibition of cell proliferation
B859-35, 5821

inhibition of inositol phosphate formation
hexadecylphosphocholine, 807

isozymes
various types, human leukemic cells, 4271

mediation of tumor necrosis factor gene expression
activation by ionizing radiation, 4565

modulation of lymphocyte proliferation, 82

phosphorylation
12-O-tetradecanoylphorbol-13-acetate, *sn*-dioctanoylglycerol, 4624

prostasin
nonpromoting phorbol ester, mouse skin, 5355

translocation
reversible and phorbol ester-specific defect, 130

vacuole formation and cytokeratin rearrangement
teleocidin, hepatoma cells, 2677

Protein serine kinase
human *PIM-1* gene product, 2486

Protein tyrosine phosphatase
genetic approaches to study
molecular basis of human cancer, 5015s

Proteoglycan
melanoma-associated antigen
monoclonal anti-idiotypic antibodies, 3183

partial characterization
neoplastic and nonneoplastic breast tissues, 1443

Protooncogenes
acivicin-induced monocytoid differentiation
mRNA expression, myeloid leukemia cells, 1202

activation
spontaneously occurring non-liver tumors, 1148

bcl2
differential expression, neuroblastoma, 6529

c-erbB-2
immunoscintigraphy, 990

monoclonal antibody, cisplatin cytotoxicity in breast and ovarian tumor cell lines, 4575

risk of recurrent disease, node-negative breast cancer, 556

chemical and physical carcinogenesis, 5023s

c-jun
camptothecin and its derivatives, human myeloid leukemia cells, 6636

c-kit
transcript expression, small cell lung cancer, 2416

c-kit and *hst-1*
expression, human testicular germ cell tumors, 1811

c-raf-1 and *c-myc*
bronchial epithelial cells, lung carcinogenesis model, 3793

dbl
preferential expression, tumors of neuroectodermal origin, 4234

genetic analysis of human esophageal tumors
high incidence geographic areas, 4102

genetic approaches to study
molecular basis of human cancer, 5015s

inhibition of expression
antisense oligodeoxynucleotides, 4505

K-ras
codon 12 mutations, cholangiocarcinoma, 3497

specific inhibition by antisense RNA, lung cancer cells, 1744

N-myc and *c-src*

undifferentiated phenotype and prognosis, primary neuroblastoma, 3148

pS2
expression and response to hormonal therapy
advanced breast cancer, 624

Pseudomonas exotoxin
chimeric protein
high-affinity interleukin 4 receptors, murine sarcoma cells, 3011

insulin-like growth factor I and recombinant fusion protein, cytotoxic activity, 174

-interleukin 6 chimeric molecules
human hepatocellular carcinoma in mice, 2831

-monoclonal antibody conjugates therapy, cervical carcinoma, 4001

-tumor growth factor- α fusion protein antitumor activity, 2808

Psoralen
photoadducts
differential introduction and repair, specific human genes, 2867

ultraviolet A radiation and growth of melanoma cells, 5893

5-(2-Pyrazinyl)-4-methyl-1,2-dithiole-3-thione
protection
aflatoxin B₁-induced hepatocarcinogenesis, 5501

Pyrazoloacridine
pharmacokinetics in Rhesus monkey, 5467

Pyrrolidino-4-iodotamoxifen
4-iodotamoxifen and treatment of breast cancer, 5851

Q

Quinoline derivative

MS-073
circumvention of multidrug resistance, 2420

R

Radiation

-induced cancer
oncogenic mechanisms, 2740

-induced fibrosarcoma-1
¹⁴N nuclear magnetic resonance spectroscopy, 3378

-induced fibrosarcoma-1 tumor metabolism and blood flow
glucose and mannitol effects, nuclear magnetic resonance, 3108

-induced human sarcoma
p53 gene mutations, abnormal retinoblastoma protein, 6393

ionizing
cis-diamminedichloroplatinum(II) and, resistance patterns, 4523

G₂ block, cyclin B expression in HeLa cells, 5113

pazelliptine and, additive and supraadditive interaction, 3204

supercoiled DNA and, interaction within human cells, 3857

tissue-type plasminogen activator, malignant melanoma cells, 5587

topotecan and, synergistic cell killing, 5813

SUBJECT INDEX TO VOLUME 51

tumor necrosis factor gene expression, protein kinase C, 4565
 leukemia virus induction, preleukemic cells, 2179
 193-nm DNA damage, mammalian cells, 288
 oncology past achievements, ongoing controversies, 5065s
 photon stem cell sensitization and then protection, interleukin 1 β , 2280
 protection against late effects S-2-(3-aminopropylamino)-ethylphosphorothioic acid, 4125
 repair of damage autocrine effects of fibroblast growth factor, endothelial cells, 2552
 sensitivity local tumor control, melanoma xenografts, 4609
 therapeutic young age, secondary thyroid neoplasms, 2885
 tumor oxygenation and interstitial hypertension, carcinoma of uterine cervix, 6695
 uptake and distribution specific and control monoclonal antibodies, subcutaneous xenografts, 3251
Radioconjugates
 monoclonal antibody integrated microscopic-macroscopic pharmacology, 4821
Radioimmunotherapy
 generator-produced rhenium-188 direct radiolabeling of monoclonal antibodies, 4594
 interferon enhancement colon carcinoma, 2335
 ^{186}Re small cell lung carcinoma xenografts, nude mice, 676
Radioiodination
 monoclonal antibodies improved efficacy, *N*-succinimidyl-3-(tri-*n*-butylstannyl)benzoate, 4164
Radionuclides
 antibodies labeled with ^{131}I infusion, biodistribution and dosimetry, 5921
 monoclonal antibody conjugation to drugs induction of immunogenicity, 5774
Radiosensitization
 fluorodeoxyuridine-mediated modulation iododeoxyuridine incorporation, colon cancer, 3900
Radiotherapy
 factors influencing mutation *hppt* locus in T-cells, breast cancer, 6603
 improvement in therapeutic ratio indomethacin plus misonidazole, murine sarcoma, 3639
 yttrium-90-labeled anti-Ly1 monoclonal antibody graft-vs-host disease, major histocompatibility barrier, 1891
 T cell lymphoma, 1883
ras

activated alleles human prostatic carcinoma, 1632
 carcinogen-induced lymphomagenesis *pim-1* transgenic mice, 958
 codon 61 mutation thyroid tumors, iodide-deficient area, 2690
 inhibition of cell growth by lovastatin, 712
 low frequency of mutations neuroectodermal tumors, 1596
ras p21 similarity of *smg p21A* low molecular weight G proteins, normal and malignant tissues, 2223
RC-160
 RC-3095 and inhibitory effect, nitrosamine-induced pancreatic cancer, 5980
Receptors
 androgen extracellular matrix, transformed prostate fibroblasts, 1910
 B16-F1 melanoma autocrine motility factor, 3507
 -bound plasminogen activator malignant transformation, fibroblasts, 1221
 1,25-dihydroxyvitamin D₃ human carcinomas, 2021
 prognosis, breast cancer, 239
 epidermal growth factor and insulin-like growth factor-I autocrine stimulation, esophageal carcinoma, 1898
 epidermal growth factor antitumor activity, transforming growth factor- α /PE40, 2808
 cellular growth response, colon carcinoma, 1452
 expression in human gliomas, 2164
 hematopoietic cell line, 150
 heterogeneity of cells, feline mammary carcinoma, 4028
 H-ras induction of invasive phenotype, papillary transitional cell carcinoma cells, 4486
 α -interferon, human epidermoid cancer cells, 1294
 α -interferon, renal carcinoma cells, 5881
 lack of down-regulation, tumorigenesis of NR6 cells, 6170
 -negative tumors, estradiol receptor-positive primary breast cancers, 4544
 reactive monoclonal antibodies, 5471
 spontaneous melanoma metastasis, suppression in SCID mice, 2193
 squamous carcinoma, paraneoplastic syndromes, 2438
 transforming growth factor- α and, primary human ovarian cancer, 5322
 transforming growth factor- α , autocrine growth mechanism in ovarian cancer, 5951, 5956
 estrogen antiestrogen with clinical potential, 3867
 binding to specific DNA target site, breast cancer, 3405
c-erbB-2 and, prognostic significance in breast cancer, 3296
 constitutive transcriptional activity, breast tumor, 105
 ER-binding platinum complex, breast cancer, 3217
 hormone-dependent and hormone-independent Gruber strain mouse, 3843
 interleukin 1 α , MCF-7 cells, 1488
 prognosis, breast cancer, 239
 estrogen and progesterone normal female breast, 1817
Fc low-affinity, antibody-dependent tumor cell phagocytosis, 1117
FcyRII polyoma virus-transformed cells, 612
fibronectin increased tumorigenicity, Chinese hamster ovary cell variants, 1738
glucocorticoid CCRF-CEM cells, 5224
growth factor cytogenetic abnormalities, normal bronchial epithelium and lung cancer, 400
insulin-like growth factor transcriptional mechanism, *c-myb*, 5997
insulin-like growth factor I ovarian cancer, 5107
interleukin 1 interleukin 1 α and etoposide, melanoma cells, 769
interleukin 2 biological monitoring, cytokines and cell surface phenotypes, 6312
interleukin 3 inhibition of growth by monoclonal antibody, mouse leukemic cell lines, 4355
interleukin 4 lung tumors and normal lung, 261
 murine sarcoma cells, chimeric protein, 3011
laminin complementary DNA-coded synthetic peptide, inhibition of cancer cell attachment, 5672
M, 80,000/105,000 binding of thrombospondin, human carcinoma cells, 3648
motility factor lung colonization capacity, melanoma cells, 2699
natural folates and antifolate compounds membrane transport, L1210 leukemia cells, 5507
nicotinic cholinergic uptake and metabolism, 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone, 2009
nuclear receptor subtype-selective activities retinoids, 4804
platelet-derived growth factor autocrine transformation, 5087
progesterone DNA binding, R5020 and RU486, 3938
 prognosis, breast cancer, 239
 prostaglandin E₂

SUBJECT INDEX TO VOLUME 51

mammary tumor metastasis, 2047
 retinoic acid
 abnormal expression and keratin 19, oral and epidermal squamous cell carcinoma, 3972
sigma opioid
 non-neuronal tumors, 6558
 soluble
 increased serum levels, tumor necrosis factor, 5602
T-cell
 CD3 complex, discordant gene and surface expression, 6084
 genes in T-cell neoplasms, acute lymphoblastic leukemia, 6103
T-cell β -chain
 methylation status, B precursor acute lymphoblastic leukemia, 2917
ras oncogene mutations, thymic lymphoma, 1627
T-cell V β gene
 tumor-infiltrating lymphocytes, primary and metastatic melanoma, 5565
thrombospondin
 distinct domains, human carcinoma cells, 1645
transferrin
 immunotoxin, leukemic hematopoietic progenitors, 536
transforming growth factor- α
 activation pathway, human squamous carcinoma cells, 6254
truncated glucocorticoid
 P1798 mouse lymphosarcoma, 2786
urokinase
 facilitation of extracellular matrix invasion, colon cancer, 3690
Rectum
 mucosal cell proliferation
 nonfamilial neoplasia, large intestine, 1917
Red blood cells
 rigidity
 tumor blood flow, hyperglycemia, 2727
Renal neoplasms: see Kidney neoplasms
Rep78
 inhibition of H-ras expression, 3373
Reproduction
 factors
 colorectal cancer risk, Chinese females, 2307
 hormones and
 uveal melanoma, women, 1370
Respiration
 disruption of cellular energy balance
 suramin, prostatic carcinoma, 6629
Respiratory disease
 lung cancer in women, 4893
Retinoblastoma
 aberrations of tumor suppressor p53
 hepatocellular carcinoma, 5520
 abnormal protein and p53 gene mutations
 radiation-induced human sarcoma, 6393
 absence of protein expression
 primary non-small cell lung carcinoma, 2735
 gene inactivation
 human bladder and renal cell carcinoma, 5736
 locus
 frequent loss of heterozygosity, human esophageal cancers, 5766
 molecular genetic alterations
 human bladder cancer, 5405
RB gene-reconstituted cells
 intraocular tumor suppression, 6381
reconstituted cells
 intraocular tumor formation, 4481
Retinoic acid
 dibutyryl cyclic adenosine 3':5'-monophosphate and
 differentiation of neuroblastoma, interferon, 3958
 synergistic inhibition
 phorbol ester-induced transformation, JB6 cells, 1158
12-O-tetradecanoylphorbol-13-acetate or tumor progression, murine epidermal cells, 4701
All-trans-Retinoic acid
 inhibition of growth
 human rhabdomyosarcoma cells, 4882
Retinoids
 abnormal expression of retinoic acid receptors
 oral and epidermal squamous cell carcinoma, 3972
 alteration of regulation by immortalization
 ectocervical epithelial cell differentiation, papillomavirus type 16, 3982
 nuclear receptor subtype-selective activities, 4804
 prevention of primary prostate cancer
 N-(4-hydroxyphenyl)retinamide, 3610
Retrovirus
 hybrid human endogenous
 calbindin and, prostate cell line PC3, 4107
 in situ transfer of v-Ha-ras
 carcinoma induction, mammary epithelial cells, 2642
SV40 and Abelson murine leukemia virus
 induction of differentiation, protein kinase inhibitors, 4649
Rhabdomyosarcoma
 dbl protooncogene
 preferential expression, 4234
 human neural and striated muscle cells
 CD56 and CD57, 1300
 inhibition of growth
 all-trans-retinoic acid, 4882
 melphalan-resistant xenograft
 therapeutic analysis, 3906
 stages of human fetal skeletal muscle development
 muscle-specific gene expression, 5100
Rhenium-188
 generator-produced
 direct radiolabeling of monoclonal antibodies, radioimmunotherapy, 4594
Ribonucleotide reductase
 inhibition
 2-chloro-9-(2-deoxy-2-fluoro- β -D-arabinofuranosyl)adenine, 2386
 gallium, murine leukemic L1210 cells, 6199
Ricin
 blocked
 preparation of immunotoxin, therapeutic use, 6235
Ricin A chain
 deglycosylated
 covalent binding of α_2 -macroglobulin, 1482
immunotoxins
 potentiation, monensin in lipid emulsion, 4316
intracellular trafficking
 ligand effects, anti-ricin hybridomas, 1689
M, 30,000 form
 pharmacokinetics and tumor localization, immunotoxins, 4219
Phase I immunotoxin trial
 B-cell lymphoma, 4052
 90 Y-labeled C110 anti-CEA antigen immunotoxin
 preclinical assessment, colon cancer, 255
RIF-1 neoplasms
 combination therapy
 lonidamine, hyperthermia and chemotherapy, 5910
5-fluorouracil metabolism
 19 F magnetic resonance spectroscopy, 1384
RNA
 antisense
 specific inhibition of K-ras, lung cancer cells, 1744
 α -fetoprotein
 adult rat liver, 4656
 growth factor
 human malignant melanoma, 4815
 inhibition of primer formation
 fludarabine triphosphate, CCRF-CEM leukemia cells, 1829
 oxidative damage by nitroalkanes
 liver, 3143
 posttranscriptional regulation
 SV40 T antigen, DNA polymerase- α genes, 1465
RNA, messenger
 acivicin-induced monocytoid differentiation
 myeloid leukemia cells, 1202
 cathepsin B
 stage-specific increases, colorectal carcinoma, 1137
 control of carcinoembryonic antigen
 gene family
 differentiating colon carcinoma, 3526
 cyclic AMP-dependent protein kinase
 normal vs. neoplastic mouse lung epithelial cells, 6699
 cytokine
 alveolar macrophages and blood
 monocytes, lung cancer, 857
 discordant gene and surface expression
 T-cell receptor/CD3 complex, 6084
 enhanced promoter activity
 human M, 72,000 type IV collagenase gene, metastatic cell line, 6190
 hepatic
 arylsulfotransferase IV, hepatocarcinogenesis, 504
 insulin-like growth factor receptor
 transcriptional mechanism, c-myb, 5997
 O β -methylguanine DNA methyltransfer-

SUBJECT INDEX TO VOLUME 51

ase activity
streptozotocin/bis-chloroethylnitrosourea combination therapy in HT-29 cells, 1581
novel gene sequences
molecular subtraction, melanoma, 1418
plasminogen activation system
human colon cancer, 4067
single 3.7-kilobase
hybridization to immediate-early promoter-enhancer, cytomegalovirus in HL-60 and acute myeloid leukemia cells, 4724
splicing patterns
neural cell adhesion molecule, lung cancer cell lines, 6019
tissue lipoprotein lipase activity
tumor-induced alterations, 863
type II inosine 5'-monophosphate dehydrogenase
human leukemias, 3886
RNase
growth factor messenger RNA expression
human breast fibroblasts, benign and malignant lesions, 4979
lactoferrin and polymorphism
normal leukocytes, leukemic cells and breast cancer, 3039
Rosette
neural formation within *in vitro* spheroids
extracellular matrix components, teratocarcinoma cell line, 2655
RP 56976: see Taxotere
RU486
R5020 and
DNA binding, progesterone receptor, 3938
Ruthenium
platinum and titanium complexes
DNA damage, ovarian tumor cells, 2943

S

S 12363
preclinical antitumor activity, 2312
Salivary gland
histopathology of tumors
H-ras oncogene, 3762
Salmonella abortus equi
Phase I trial
cancer patients, 2524
Salmonella typhimurium
mutagenicity
fjord- and bay-region diol-epoxides, 1659
Salt
enhanced induction of gastric carcinogenesis
N-methyl-*N'*-nitro-*N*-nitrosoguanidine, 2863
Saporin
delivery to lymphoma
comparative mixtures, bispecific F(ab')₂ antibodies, 2353
Sapporo Cancer Seminar
tenth annual meeting, 745
Sarcoma
-associated antigens

monoclonal antibody identification, 3768
Ewing's
cell surface antigen, biochemical and genetic characterization, 336
follow-up study of twenty-four families
Li-Fraumeni syndrome, 6094
high-affinity interleukin 4 receptors
cytotoxicity, chimeric protein, 3011
improvement in therapeutic ratio
radiotherapy, indomethacin plus missonidazole, 3639
increased glutathione peroxidase doxorubicin resistance, 521
Kaposi's
superantigens, endothelial cell chemotaxis and invasiveness, 2670
promoting effect of snuff
4-nitroquinoline-*N*-oxide, 7,12-dimethylbenz(a)anthracene, 4388
radiation-induced
p53 gene mutations, abnormal retinoblastoma protein, 6393
reticulum cell
transforming gene, neoplasia, 744
Schwann
-like cell lines
inducible expression, calcyclin, 1733
SCID: see Severe combined immunodeficiency disease
SDZ PSC 833
circumvention
P-glycoprotein-mediated multidrug resistance, 4226
Selenite
dietary
inhibition, 7,12-dimethylbenz(a)anthracene-induced mammary tumors and DNA adducts, 4613
Selenium
chemical form
critical metabolites, cancer prevention, 595
Senescence
human and hamster cells
down-regulation of cdc2, 6010
Serum
carcinoembryonic antigen
tumor-associated glycoprotein-72 levels, interferons, 4155
levels of dehydroepiandrosterone and its sulfate
risk, development of bladder cancer, 1366
small cell lung cancer-associated ganglioside
immunochemical detection, 2879
urinary androgens and
risk of breast cancer, postmenopausal women, 2572
Severe combined immunodeficiency disease
antitumor activity of Fab' and IgG anti-CD22
human B lymphoma grown in SCID mice, 5876
growth and metastasis
fresh human melanoma tissue, 4937
Sex hormone-binding globulin
serum and urinary androgens
risk of breast cancer, postmenopausal women, 2572
Sex organs
accessory
invasive carcinoma, rats, 1264
Shuttle vector
human
construction, single nitrogen mustard interstrand, 2268
N-methyl-*N*-nitrosourea-induced mutations
*O*⁶-methylguanine-DNA methyltransferase-deficient cells, 6219
Sialic acid
N-glycolylneuraminic acid expression
human cancerous tissues, avian lymphoma cell lines, 1242
Simian virus 40
immortalization of milk epithelial cells
loss of heterozygosity, short arm of chromosome 11, 294
retrovirus and Abelson murine leukemia virus
induction of differentiation by protein kinase inhibitors, megakaryoblastic cell line, 4649
T-antigen
immortalized esophageal epithelial cells, 365
posttranscriptional regulation, DNA polymerase- α gene, 1465
Sister chromatid exchange
induced chromosome damage
individual susceptibility, genotoxic exposures, 5266
metabolism and single-strand breaks
4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone, vitamin A, 3846
Skin
carcinogenesis
diet and calorie restriction, Sencar mouse model, 1851
inhibition of induction
phorbol 12-myristate 13-acetate of ornithine decarboxylase, mouse, 5355
papilloma
promoter independence, 1045
phorbol ester-elicited tumor promotion
dietary fat, 907
progression of squamous carcinoma to spindle carcinoma
H-ras alleles on chromosome 7, 4097
tumor promoter-treated common genetic pathway, 1398
formation, oxidized DNA bases, 4443
Skin neoplasms
altered *O*⁶-alkylguanine-DNA alkyltransferase
cell strains, UV irradiation, 2425
epidermal morphogenesis and keratin expression
c-H-ras-transfected tumorigenic clones, 4402
growth of melanoma
local effect, ultraviolet radiation, 4176
hairless mice
discontinuation, ultraviolet irradiation, 979
ultraviolet-irradiated shuttle vector plasmid
point mutations, 3177
ultraviolet radiation-induced, in *Mono-delphis domestica*
photoreactivation, 6539

SUBJECT INDEX TO VOLUME 51

SN-38
intracellular roles
antitumor effect, CPT-11, 4187

Snuff
promoting effect
4-nitroquinoline-N-oxide, 7,12-dimethylbenz(a)anthracene, 4388

Sodium ascorbate
H-ras mutations
bladder tumors, 3471

Sodium butyrate
glycosylation and
transcriptional regulation, germ cell alkaline phosphatase, 2058

Sodium saccharin
AIN-76A diet
lack, bladder tumor promoting activity, 1778

H-ras mutations
bladder tumors, 3471

sodium ascorbate and
bladder tumor promoting activity, 1766

Solutol HS 15
reversal of multidrug resistance, 897

Somatic cells
hybrids
predominance of metastatic phenotype, murine melanoma, 6292

Soy sauce
dietary
inhibition, benzo(a)pyrene-induced mouse forestomach neoplasia, 2940

Species differences
metabolic activation and inactivation 1-nitropyrene, liver, 3919

Spermidine
-spermine *N¹*-acetyltransferase activity polyamine pool deletion, melanoma, 3715

Spheroids
multicellular
self-diffusion of water, magnetic resonance imaging, 4072

multicellular tumor
cellular energetics, phosphorus nuclear magnetic resonance spectroscopy, 3831

Spleen
leukocytes
cytokine gene expression, flavone acetic acid, 6596

polyethylene glycol-cultured cells
adoptive chemoimmunotherapy, plasmacytoma, 4516

Squamous cell
hyperplasia
regression, forestomach lesions, 318

SR-2508
cyclophosphamide and
Phase I study, 1099

SRI 62-834
modulation of tumor cell membrane permeability
multiparametric flow cytometry, 799

Starch
malabsorption
fecal bile acids and neutral sterols, colonic carcinogenesis, 4238

Staurosporine
induction of protein kinase C agonist effects

maturation, normal and neoplastic keratinocytes, 4677

Stem cells
initial sensitization and subsequent protection
photon radiation, interleukin 1 β , 2280

Steroidogenesis
murine Leydig tumor cell
effect of 4-hydroxyandrostenedione, 3663

Steroids
contraceptive
carcinogenicity, diethylstilbestrol, 3311

1,25-dihydroxyvitamin D₃ receptors and human colorectal adenocarcinoma, normal mucosa, 1227

influence of estrogens
natural history, Sinclair swine cutaneous melanoma, 2025

silver-stained nucleolar organizer regions norethindrone, Ishikawa cells, 5987

stimulation of apolipoprotein D secretion
inhibition of cell proliferation, prostate cancer cells, 4336

Sterols
neutral
starch malabsorption, colonic carcinogenesis, 4238

Stomach neoplasms
urinary excretion of nitrate
N-nitrosoproline, 3-methyladenine and 7-methylguanine, 190

Streptozotocin
bis-chloroethylnitrosourea combination therapy
*O*⁶-methylguanine DNA methyltransferase, messenger RNA levels in HT-29 cells, 1581

Stroma
human breast fibroblasts
growth factor messenger RNA expression, benign and malignant lesions, 4979

regulation of cell growth
nerve growth factor-like protein, human prostate, 3304

tumor
plasminogen activation system, human colon cancer, 4067

N-Succinimidyl-3-(tri-*n*-butylstan-nyl)benzoate
improved therapeutic efficacy
radioiodination, monoclonal antibody, 4164

Sugar
accessible epitopes
colon cancer-associated mucins, monoclonal antibody AM-3, 5342

Sugar chains
antibody-lectin enzyme immunoassay myeloma IgG, 5888

Sulfomucin
colonic
identification, specific monoclonal antibody, 5728

Superantigens
elimination of V β 2 bearing T-cells
preneoplastic and neoplastic mammary lesions, 3331

Superoxide dismutase

colon cancer
gene expression, complementary DNA, 939

Suramin
disruption of cellular energy balance
prostatic carcinoma, 6629

inhibition of growth
human osteosarcoma xenografts, nude mice, 3585

T

TAG 72
coexpression of different antigenic markers
CA 125 determinants, 468

elevation of serum carcinoembryonic antigen
interferons, 4155

epitopes in colorectal cancer, 5378

normal and transformed endometrium diagnosis, postmenopausal patients, 3001

pan carcinoma monoclonal antibody CC49
construction, binding properties, 6363

Tamoxifen
factors influencing mutation
hprt locus in T-cells, breast cancer, 6603

ICI 182,780
antiestrogen with clinical potential, 3867

metabolites and
distribution in rat and human tissues, steady-state treatment, 4837

P-450-mediated activation and irreversible binding
proteins in rat and human liver, 6052

pS2 expression and response
advanced breast cancer, 624

pyrrolidino-4-iodotamoxifen and 4-iodotamoxifen
treatment of breast cancer, 5851

Tannic acid
tumor promoter-induced ornithine decarboxylase activity
mouse epidermis, 2820

Taxotere
experimental antitumor activity, 4865

T-cells
autotumor-reactive clones
tumor-infiltrating lymphocytes, liver metastasis of gastric carcinoma, 6153

CD8⁺
positive selection from blood and lymph nodes, head and neck cancer, 3891

curative effect
N,N'-bis[3-(ethylamino)propyl]-1,7-heptanediamine, L1210 leukemia, 62

cytotoxic T-lymphocytes
protein core of mucin molecule, breast adenocarcinoma, 2908

factors influencing mutation
hprt locus, breast cancer treatment, 6603

fetal
hprt gene deletion, VDJ recombinase-like activity, 6001

SUBJECT INDEX TO VOLUME 51

genetic approaches to study molecular basis of human cancer, 5015s

immunization with haptenized tumor cells inflammation, melanoma metastases, 2731

interferon-induced inhibition spontaneous metastases, melanoma, 1124

neoplasms T-cell receptor gene configurations, 6103

peripheral blood adoptive immunotherapy, LAK cells and interleukin 2, 1494

recognition HLA-A2 antigen, human melanoma cell lines, 3164

targeted antitumor responses host survival, human ovarian carcinoma, 5716

V β 2 bearing elimination of preneoplastic and neoplastic mammary lesions, 3331

Teleocidin differential activation and inhibition lymphocyte proliferation, 82

vacuole formation cytoskeleton rearrangement, hepatoma cells, 2677

Tenascin qualitative and quantitative changes fibronectin, lung fibroblast and lung tumor tissues, 4876

secretion by human melanoma cells, 4853

Teniposide camptothecin or 4'-(9-acridinylamino)-3-methanesulfon-m-aniside degradation of nuclear DNA, S phase of HL-60 cells, 1165

etoposide and mechanisms of resistance, colon and lung carcinoma, 5275

podophyllotoxin glucoside to etoposide chemical and biological route, 5

Teratocarcinoma cell line neural rosette formation within *in vitro* spheroids, 2655

Terpenoids nonintercalative heat-stable topoisomerase II-DNA cleavable complex, 2922

Testis cells topoisomerase II levels and chemosensitivity, 6592

Testosterone androgen-sensitive cancer thyroid hormone, 4323

high-fat diet and patterns of prostatic cancer *N*-nitrosobis(2-oxopropyl)amine, 4757

peripheral hormone levels prostatic cancer, benign prostatic hyperplasia, 3445

serum and urinary androgens risk of breast cancer, postmenopausal women, 2572

Testosterone propionate 3,2'-dimethyl-4-aminobiphenyl and

invasive carcinoma, accessory sex organs, 1264

Tetrachloro-(*d*,*L*-trans)-1,2-diaminocyclohexaneplatinum(IV) unexpected biotransformation pathway L1210 cell line, 969

12-O-Tetradecanoylphorbol-13-acetate formation of oxidized DNA bases treated mouse skin, 4443

induction of protein kinase C agonist effects staurosporine, normal and neoplastic keratinocytes, 4677

mechanism of G₂ inhibition HeLa cells, 4328

retinoic acid or tumor progression, murine epidermal cells, 4701

sn-1,2-dioctanoylglycerol and phosphorylation, protein kinase C, 4624

4 β -12-O-Tetradecanoylphorbol-13-acetate 4 α -12-O-tetradecanoylphorbol-13-acetate and arachidonate release, epidermal cells, 850

Tetrahydrofolate cofactor highly glycosylated methotrexate membrane carrier K562 cells, 3420

Tetrazolium -based assays for cellular viability parameters, formazan production, 2515

Thermoresistance loss of intrinsic heat resistance *M*, 70,000 expression, human x hamster hybrids, 2636

Thermostolerance HSP-28 and HSP-70 genes leukemic and nonleukemic human tumors, 6608

Thioimidazolines cytotoxicity human malignant cell lines, 43

Thiol cellular glutathione and surgically resected lung tumor, normal lung tissue, 4287

melphalan-resistant multiple myeloma development of cell line, 995

Thiopurinol 2,6-dithiopurine and inhibition of binding, benzo(*a*)pyrene diol epoxide to DNA in epidermis, 4859

Thiopyrimidines cytotoxicity human malignant cell lines, 43

Thiotepa combined with ethacrynic acid Phase I study, 6059

oxygenation by constitutive hepatic P450 enzymes drug metabolism and clearance, P450-inducing agents, 2340

Phase I/pharmacokinetic reevaluation, 3171

Threonine mouse immunotherapy, 1406

Thrombin fibrinogen deposition

primary breast cancer tissue, 349

inhibitor desulfatohirudin murine melanoma experimental metastasis, 4549

Thrombospondin binding of human carcinoma cells *M*, 80,000/105,000 receptor, 3648

binding to surface of human osteosarcoma cells mediation, platelet-osteosarcoma cell interaction, 2621

distinct domains receptor expression, human carcinoma cells, 1645

Thromboxane A₂ urinary excretion and degradation products prostacyclin, gestational choriocarcinoma, 4146

Thy-1 negative growth regulator *ras*-transformed fibroblasts, 99

Thymidine inhibition of poly(adenosine diphosphate-ribose) polymerase 1,3-bis(2-chloroethyl)-1-nitrosourea, L1210 cells, 1586

uptake glucose transporter expression, Chinese hamster ovary cells, 4450

Thymidylate synthase inhibition cell death, 2'-deoxyuridine-5'-triphosphate accumulation, 2346

inhibitor *ICL D1694*, L1210 tumor cell growth, 5579

monoclonal antibodies cytoplasm, human cells and tissue, 6668

Thymocytes topoisomerase II-reactive chemotherapeutic drugs induction of apoptosis, 1078

Thyroid human tissues α -amylase isozymes, 3544

Thyroid hormone androgen- or basic fibroblast growth factor-induced proliferation Shionogi carcinoma 115 mammary carcinoma cells, 4323

Thyroid neoplasms high rates of *ras* codon 61 mutation iodide-deficient area, 2690

medullary low frequency, *ras* gene mutations, 1596

secondary therapeutic radiation, young age, 2885

survival and causes of death, 1234

TIMP-1 immunologic quantitation colon cancer, 6231

Titanium platinum and ruthenium complexes DNA damage, ovarian tumor cells, 2943

Tn antigen mouse immunotherapy, 1406

Tobacco extract

SUBJECT INDEX TO VOLUME 51

carcinogenicity, vitamin A-deficient Sprague-Dawley rats, 3018

-specific nitrosamine
4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone, microsomal α -hydroxylation, 5495

use of
fatal prostate cancer, 3067

Topotecan
ionizing radiation and synergistic cell killing, 5813

Toxins
monoclonal antibody conjugation to drugs
induction of immunogenicity, 5774

Tracheal epithelial cells
ornithine decarboxylase activation and expression
asbestos and oxygen species, 167

Transcatheter arterial embolization
evaluation of nontumorous tissue damage
hepatocellular carcinoma, 5667

Transforming growth factor
gene expression
regulation by progestins, endometrial adenocarcinoma cells, 5476

growth factors in hormone-related tumors, 4114

Transforming growth factor- α
altered expression
hereditary rat renal cell carcinoma, 2973

autonomous growth
androgen-independent prostatic carcinoma cells, 2780

c-myc and
clonal cosegregation of tumorigenicity, liver epithelial cells, 5238

establishment of quiescent state, colon carcinoma cells, 2256

epidermal growth factor and differential binding, human pancreatic cancer cell line, 6243

epidermal growth factor receptor autocrine growth mechanism
ovarian cancer cell line, 5951, 5956

primary human ovarian cancer, 5322

expression in human gliomas, 2164

pathway in squamous carcinoma cells, 6254

-Pseudomonas exotoxin fusion protein
antitumor activity, 2808

Transforming growth factor- β
anchorage-independent growth
murine epithelial cells, 5898

cell death
cultured rat hepatocytes, 2478

cell resistance to tumor necrosis factor cytotoxicity
growth arrest, G₁ phase of cell cycle, 2379

growth of highly enriched hematopoietic progenitor cells
normal human bone marrow, peripheral blood, 4828

messenger RNA and its polypeptide human hepatocellular carcinoma, 4080

release from gastric carcinoma cells contraction, collagen-matrix gels containing fibroblasts, 3550

synergistic inhibition

phorbol ester-induced transformation, JB6 cells, 1158

Transforming growth factor- β , basic fibroblast growth factor and localization, human mammary gland, 4685

differential expression of gene 3LL metastatic variants, 5491

induction of cachexia and systemic fibrosis without an antitumor effect, nude mice, 3590

resistance to growth inhibitory effects transformation, rat liver epithelial cells, 5929

Transplantation
bone marrow
induction of graft vs. leukemia effect, interleukin 2, 2015

human prostatic carcinoma
nude mice, Matrigel, 3814

tumor immunity and, 757, 5433

Trichosanthin
-monoclonal antibody conjugate cytotoxicity, human hepatoma cells, 3353

N,N',N''-Triethylenethiophosphoramide
N,N',N'-triethylenephosphoramide and interaction, cellular DNA, 4360

Trimethylamine
¹⁴N nuclear magnetic resonance spectroscopy tumors, 3378

N,N,N'-Trimethylsphingosine derivatives
cell membrane signaling, target in cancer therapy, 1613

inhibitory effect
metastatic potential, B16 melanoma, 6138

Trimetrexate
combined with *cis*-diamminedichloroplatinum(II)
pharmacokinetic study, 3080

resistance of lymphoblastic leukemia protein kinase C activity, multidrug resistance, 55

1,4,5-Triphosphate
altered intracellular calcium regulation colorectal cancer, "normal" adjacent mucosa, 4492

Trophoblast protein-1
pregnancy recognition hormone antiproliferative activity, 5304

Trypsin
tumor-associated cancer cell-mediated degradation, extracellular matrix, 2107

Tryptophan
ascitic and solid tumor models interferon- γ antitumor activity, ovarian cancer, 6643

Tubulin
polymerization 4 β -arylamino derivatives, 4'-*o*-demethyllepidophyllotoxin, 1755

Tumor-associated antigen
cloning of monoclonal antibodies, folate binding protein, 6125

cytotoxic T-lymphocytes

protein core of mucin molecule, breast adenocarcinoma, 2908

monoclonal antibody BCA 227
breast carcinoma, 1537

Tumor growth
inhibition by tumor mass, 2
population ecology issues, 2542

Tumorigenesis
dietary dehydroepiandrosterone for chemoprevention preneoplastic and neoplastic mammary lesions, 3331

histopathology of salivary and mammary gland tumors

H-ras, transgenic mice, 3762

inhibition by 2,6-dithiopurine and thiothiouracil binding of benzo(*a*)pyrene diol epoxide to DNA, mouse epidermis, 4859

4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone inhibition by arylalkyl isothiocyanates, lung, 1846

*O*⁶-methylguanine, mouse lung, 5557

non-downregulating epidermal growth factor receptors, 6170

participation of p53 protein cellular response, DNA damage, 6304

role of chromosome rearrangements deletions, point mutations, 5440

Tumorigenicity
clonal cosegregation *c-myc* and transforming growth factor- α , liver epithelial cells, 5238

fibronectin receptor deficiency Chinese hamster ovary cell variants, 1738

increases in sensitivity to cytotoxic agents, human fibroblasts, 1855

loss Had-1, composition of glycolipids, 1701

reduced γ -interferon, murine tumor cells, 1185

tumor invasion and metastasis positive and negative regulation, 5054s

tumor necrosis factor sensitivity MCA102 tumor cell immunogenicity, ultraviolet irradiation, 6209, 6210

Tumor markers
relative operating characteristic analysis group modeling, breast carcinoma, 1904

Tumor necrosis factor
-cachectin decrease in catalase activity, rat liver, 3990

cell resistance growth arrest, G₁ phase of cell cycle, 2379

effect of ultraviolet irradiation MCA102 tumor cell immunogenicity, 6209, 6210

expression by human ovarian carcinoma, 4476

gene expression mediation by protein kinase C, activation by ionizing radiation, 4565

gene expression in tumor cells

SUBJECT INDEX TO VOLUME 51

reduced tumorigenicity and invasiveness, 2229
increased serum levels
 soluble receptors, cancer patients, 5602
inhibition of cytokine-induced lipogenesis
 interleukin 4, 2803
interleukin 2 and
 preclinical study, canine neoplasms, 233
liposomal-lipophilic
 preparation and characterization, 3362
potentiation of antiproliferative effects
 interleukin 4, various tumor cell lines, 4266
-resistance cells
 discrete types, derivation from same cell line, 2469
separation of lethal and antitumor activities
 induction of tolerance, 2366
stimulation of epithelial tumor cell motility, 5315
tumor cell immunogenicity and sensitivity
 ultraviolet irradiation, 1521
Tumor necrosis factor- α
 γ -interferon and
 androgen-dependent and -independent prostatic tumors, 2329
 experimental model, cancer cachexia, 2302
 γ -interferon or
 interleukin 4, inhibition of cell growth in renal cell carcinoma, 5687
 interleukin 1 and
 tumor growth and development, cancer cachexia, 415
 interleukin 2 and
 Phase I, advanced non-small cell lung cancer, 3669
 interleukin 4 and γ -interferon
 modulation, melanoma cells, 2002
intravenous
 administration three times weekly, 1651
Tumor progression
allelotyping study
 primary hepatocellular carcinoma, 89
 β 1-6 branched oligosaccharides as marker
 breast and colon neoplasia, 718
inhibition of *c-myc* expression
 phosphorothioate antisense oligonucleotide, growth of breast cancer, 3996
invasive and growth factor-independent cell variants
 primary human melanomas, 2205
keratinocyte model
 dysregulation, parathyroid hormone-like peptide expression, 6521
loss of prolactin dependency
 karyotypic changes, lymphoma cell cultures, 282
murine epidermal cells
 12-O-tetradecanoylphorbol-13-acetate or retinoic acid, 4701
mutator phenotype
 multistage carcinogenesis, 3075
overexpression of oncogene products

lack of parenchymal infiltration, brain, 3595
somatic allelic deletion
 nm23 in human cancer, 2490
Tumor promotion
ethyl phenylpropiolate, 5642
induced ornithine decarboxylase activity
 tannic acid and other polyphenols, mouse epidermis, 2820
reversible and phorbol ester-specific defect
 protein kinase C translocation, 130
skin
 common genetic pathway, promoting agents, 1398
 formation, oxidized DNA bases, 4443
Tumors: see also specific type
immunity
 transplantation, 757
solid
 measurement, capillary filtration coefficient, 1352
mitomycin C and porfiromycin, potentiation by interleukin 1 α , 5454
toxicity, micelle-forming polymeric anticancer drug, 3229
solid and ascitic
 interferon- γ antitumor activity, ovarian cancer, 6643
Tumor suppressors
accumulation of genetic alterations
 progression, primary breast cancer, 5794
adeno-associated virus Rep78
 inhibition of H-ras expression, 3383
allelotype of renal cell carcinoma, 820
E-cadherin expression
 squamous cell carcinoma, lymph node metastasis, 6328
chemical and physical carcinogenesis, 5023s
genetic approaches to study
 molecular basis of human cancer, 5015s
loss of somatic heterozygosity
 hepatocellular carcinoma, 4367
intraocular tumor suppression
 RB-reconstituted retinoblastoma cells, 6381
mammary carcinoma suppressor gene
 v-H-ras oncogene transfer, mammary epithelial cells, 5298
molecular genetic alterations
 human bladder cancer, 5405
origin and development of renal cell carcinoma
 molecular analysis, 1071
radiation-induced human sarcoma
 p53 gene mutations, abnormal retinoblastoma protein, 6393
Tyrosine
phosphorylation of M, 150,000 kDa protein
 insulin-like growth factor I, metastatic colon cancer, 5859
Tyrosine kinase
differential binding and biological activities
 epidermal growth factor, transforming growth factor- α , 6243
induction of differentiation by genistein
 erythroleukemia cells, 764

Tyrophostins
antiproliferative effects
 squamous cell carcinoma, 4430

U

Ubiquitin
 changes in gene expression
 renal cancer cells, 6677
U-937 cells
 cytotoxic effect of *cis*-parinaric acid, 6144
UCN-01
 antitumor activity
 murine and human tumor models, 4888
UDP-glucuronosyl transferase
 inhibition of glucuronidation
 benzo(a)pyrene phenols, long-chain fatty acids, 4511
Ultraviolet A
 psoralen and
 growth of melanoma cells, 5893
Ultraviolet irradiation
 altered O⁶-alkylguanine-DNA alkyltransferase
 cell strains, mouse skin tumors, 2425
discontinuation
 development, skin tumors in hairless mice, 979
DNA excision repair in cell extracts
 hypersensitivity, 3384
increased immunogenicity and sensitivity
 natural cell-mediated cytotoxicity, 5153
-induced murine tumors
 absence, UV-induced systemic tumor immunosuppression, 2773
-induced skin and eye tumors in *Mondelphis domestica*
 photoreactivation, 6539
induction of melanocytic tumors
 hairless mice, 4964
local effect on melanoma growth
 immunological mediation, 4176
MCA102 tumor cell immunogenicity
 tumor necrosis factor sensitivity, 6209, 6210
tumor cell immunogenicity and sensitivity
 tumor necrosis factor, 1521
Ultraviolet light
-irradiated shuttle vector plasmid
 point mutations, xeroderma pigmentosum, 3177
-sensitive mutants for excision repair formation, complementation groups 9 and 10, 3965
Urethane
 quantitative analysis of genetic susceptibility
 liver and lung carcinogenesis, mice, 6299
Uridine
 nucleotides
 regulation of deoxycytidine kinase, human leukemia cells, 2559
Urinary tract disease
 bladder cancer, 629
Urine
 clonal growth of human bladder cancer

SUBJECT INDEX TO VOLUME 51

cell lines, 4631
epidermal growth factor
 tumor-promoting effect, rat urinary bladder carcinogenesis, 5487
frequency
 adduct formation, 4-aminobiphenyl, 4371
Uroepithelial cells
 nonrandom chromosome losses
 stepwise neoplasia, 3323
Urokinase
 -type plasminogen activator
 inhibition by antibodies, tumor dissemination, 274
 primary and metastatic tumors, pulmonary adenocarcinoma, 3522
Uterus
 endometrial carcinoma
 allelic loss on chromosome 17p, *p53* mutations, 5632
 premalignant and malignant epithelial lesions
K-ras activation, 5308

V

Vacuole
 formation and cytokeratin rearrangement
 teleocidin, hepatoma cells, 2677
Vascular leak syndrome
 normal and microvascular endothelium
 interleukin 2-induced leukocyte adhesion, dextran sulfate, 1561
Vasculation
 microvascular architecture
 mammary carcinoma, 265
Vasopressin
 stimulation of clonal growth
 small cell lung cancer, 3621
V79 cells
 hypoxic and aerobic cytotoxicity
 Mitomycin C, 6622
VDJ recombinase
 -like activity
hprt gene deletion, fetal T-cells, 6001
Verapamil
 cyclosporin A and
 modulation of multidrug resistance, human leukemia cell lines, 1749
 doxorubicin and
 buthionine sulfoximine effect, multidrug resistant cells, 67
Vinblastine
 drug-sensitive and multiple drug-resistant cells
 secretion, lysosomal enzymes, 1996
Vinca alkaloids
 derivative S 12363
 preclinical antitumor activity, 2312
 epidermal growth factor receptor-reactive monoclonal antibodies
 immunoconjugates, xenograft antitumor activity, 5471

mechanism of inhibition
 cell proliferation, 2212
 -monoclonal antibody immunoconjugate
 solid tumor membrane antigen, antigen-antibody complexes, 2965
 single and multiple dose clinical studies
 human immune response, LY256787 and LY20378, 2286

Vinorelbine
 -loaded polymeric bioresorbable implants
 local treatment, solid tumors, 5384

Vitamin A
 -deficient Sprague-Dawley rats
 carcinogenicity, tobacco extract, 3018
 metabolism and sister chromatid exchange
 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone, 3846

Vitamin D
 calcium and colon cancer, 3069
 deficiency
K-ras mutations, 1,2-dimethylhydrazine-induced colonic tumors, 4305
 dietary calcium and colonic carcinogenesis, 5608

VLA-4
 melanoma cell adhesion
 cytokine-activated endothelial cells, 2239

von Willebrand factor
 photosensitized release
 cultured human endothelial cells, 3261
VP-16: see Etoposide

W

Walker 256 cells
 morphological and phenotypic analysis, 1334

Water
 self-diffusion
 multicellular spheroids, magnetic resonance imaging, 4072

Wick-in-needle technique
 interstitial hypertension
 superficial metastatic melanoma, 6691

Wilms' tumor
 histologic and clinical features
 correlation, chromosome abnormalities, 5937

Women
 lung cancer, 4893
WR2721
 S-2-(3-aminopropylamino)-ethylphosphothioic acid
 protection, late effects of radiation, 4125

X

Xenografts
 antitumor activity
 epidermal growth factor receptor-reactive monoclonal antibodies, 5471
 ascitic and solid tumor models

interferon- γ antitumor activity, ovarian cancer, 6643

A431 tumors
 modification of growth rates, hypoxic fractions, 4111

colon tumor
 hyperthermia, ^{111}In -labeled hapten to bifunctional antibody, 1515
HT-29 human colon cancer
 inhibition of growth, bombesin/gastrin releasing peptide antagonist, 6006

human cancer
 complete growth inhibition, 20-(S)-camptothecin, 3052
human osteosarcoma
 inhibition of growth, suramin, 3585

human tumor
 microdistribution, rat monoclonal antibodies to mouse tissues, 1529
large-animal human brain tumor model
 immunosuppressed cats, 2430

MDR1-mediated resistance
 camptothecin, human KB carcinoma cells, 6039

melanoma
 cellular radiation sensitivity, local tumor control, 4609

melphalan-resistant human rhabdomyosarcoma
 therapeutic analysis, 3906
monoclonal antibody-based therapy
 ^{177}Lu -labeled immunoconjugate, 2889

ovarian carcinoma
 malignant behavior, resistance to cisplatin, 6358

preclinical antitumor activity
 penclomidine, mice, 1979
small cell lung carcinoma

^{186}Re radioimmunotherapy, nude mice, 676

subcutaneous
 uptake and distribution, specific and control monoclonal antibodies, 3251

targeted T-cell antitumor responses
 human ovarian carcinoma, 5716

Xeroderma pigmentosum

clinical symptoms
 DNA repair characteristics, 3456
point mutations
 ultraviolet-irradiated shuttle vector plasmid, 3177

Y

Yttrium-90
C110 anti-carcinoembryonic antigen immunotoxin
 preclinical assessment, colon cancer, 255
-labeled anti-Ly1 monoclonal antibody
 radiotherapy, graft-vs-host disease, 1891
 radiotherapy, T cell lymphoma, 1883